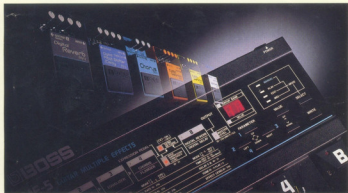


# BOSS PRODUCTS CATALOG

MULTI EFFECTOR/COMPACT EFFECTS DEVICES/  
TUNERS/RHYTHM DEVICES/DIGITAL PERCUSSION/  
PAD CONTROLLERS/EXPRESSION PEDAL/  
PEDAL VOLUMES/FOOT SWITCHES/  
MICRO STUDIO SERIES/BX MIXER SERIES/  
MONITORS/ACCESSORIES

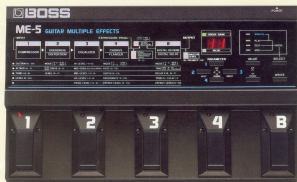


**VOL.10**

# ENHANCE YOUR CREATIVITY

*With the latest sound designs from BOSS*





## ME-5 GUITAR MULTIPLE EFFECTS

The new BOSS ME-5 Guitar Multiple Effects Processor offers guitarists a wide selection of effects in a single floor pedal unit. Guitarists now have instantaneous access to 64 different user-programmable effect patches that can be recalled quickly and easily. Featuring eight built-in effects, the ME-5 allows guitarists to create sounds by combining up to five separate effects simultaneously.

The ME-5 contains eight of the most popular effects for electric guitar—compressor, overdrive/distortion, 3-band equalizer, chorus/flanger, and digital reverb/delay. Each effect delivers the professional level of performance musicians expect from the BOSS line. Effects parameters for each effect are variable and assignable and can be stored in any patch location. Patch changes can be performed from the unit's MIDI interface.

A built-in noise suppressor is included as well, making the ME-5 perfect for use in any situation—performance, recording, or practice.

With a storage capacity of sixty-four patches, the ME-5 enables guitarists to create a wide variety of effects settings that can be accessed immediately by the unit's built-in footswitches. Four separate groups of sixteen patches each (four banks times four patches) can be selected either with the panel switch or an optional FS-5U footswitch.

Any effect or group of effects can be connected to the ME-5's effect send/return jacks so guitarists don't need to worry about losing their favorite sounds. External effects can be included in any desired patch because the ME-5's memory stores the effects loop on/off setting.

LED indicators, visible in even the most extreme stage lighting conditions, show which effects are being used for each patch. MIDI In and MIDI Out jacks allow the ME-5 to perform automatic program changes using a MIDI sequencer; a headphone jack allows guitarists

to monitor their performance or practice in privacy, and, for quick and easy guitar tuning, a Tuner Out jack is provided.

When an EV-5 or EV-10 expression pedal is hooked up to the ME-5's expression pedal input, the output level of the entire unit can be varied instantly. An FS-5U footswitch can be connected to the unit's Manual jack, which enables switching between patch/bank control or individual on/off for each effect through the ME-5's five pedal switches. A footswitch can also be connected to the Group jack to simplify selection of the group number of four separate sets of sixteen patches.

Parameter Table

| Effects                         | Parameter            |
|---------------------------------|----------------------|
| 1. COMPRESSOR                   | SUSTAIN              |
|                                 | ATTACK               |
|                                 | TOPE                 |
|                                 | LEVEL                |
| 2. OVERDRIVE/DISTORTION         | MODE                 |
|                                 | DRIVE                |
|                                 | LEVEL                |
|                                 | HI-LEVEL             |
| 3. EQUALIZER                    | MID-FREQ             |
|                                 | MID-LEVEL            |
|                                 | LO-LEVEL             |
|                                 | LO-LEVEL             |
|                                 | TOTAL LEVEL          |
|                                 | MODE                 |
| 4. CHORUS/FLANGER               | RATE                 |
|                                 | DEPTH                |
|                                 | RESONANCE            |
|                                 | EFFECT LEVEL         |
| NOISE SUPPRESSOR                | THRESHOLD LEVEL      |
|                                 | SEND/RETURN (ON/OFF) |
| 5. DIGITAL REVERB/DIGITAL DELAY | MODE                 |
|                                 | TIME                 |
|                                 | DELAY FEEDBACK       |
|                                 | TOPE                 |
|                                 | EFFECT LEVEL         |
|                                 | MASTER LEVEL         |

### Specifications

|                       |                                                                                                     |
|-----------------------|-----------------------------------------------------------------------------------------------------|
| Built-in effects      | Compressor, Overdrive/<br>Distortion, Equalizer,<br>Chorus/Flanger, Digital<br>Reverb/Digital Delay |
| Built-in memory       | 64 patches (non-volatile)                                                                           |
| Input level           | -20dBm                                                                                              |
| Input impedance       | 1MΩ                                                                                                 |
| Output level          | -20dBm<br>(Master level set at 50%)                                                                 |
| Output impedance      | 2kΩ                                                                                                 |
| Output load impedance | Over 10kΩ                                                                                           |
| Effect send           |                                                                                                     |
| Output level (rating) | -20dBm                                                                                              |
| Output load impedance | Over 10kΩ                                                                                           |
| Effect return         |                                                                                                     |
| Input level (rating)  | -20dBm                                                                                              |
| Input impedance       | 47kΩ                                                                                                |
| Compressor            |                                                                                                     |
| Compression range     | 35dB                                                                                                |
| Equalizer             |                                                                                                     |
| High level            | ±15dB                                                                                               |
| Middle level          | ±15dB                                                                                               |
| Low level             | ±15dB                                                                                               |
| Digital delay         | 16-bit D/A conversion                                                                               |
| Delay time            | 1 to 500ms                                                                                          |
| Frequency response    | 30Hz to 10kHz<br>(+0dB, -4dB)                                                                       |
| Dimensions            | 13.13/18(W) × 8.38(D) ×<br>2.58(H)in                                                                |
| Weight                | 6 lb. 10 oz.                                                                                        |



SC-5 SOFT CASE



**OD-2**  
TURBO Over Drive



**OD-1**  
Over Drive



**SD-1**  
SUPER Over Drive

The OD-2 Turbo Overdrive offers a completely new overdrive effect, adding extremely powerful expression to your playing. In addition to Level, Tone, and Drive controls, a Turbo On/Off switch is provided.

With an ordinary overdrive circuit in addition to its "turbo" overdrive circuit, the OD-2 can produce BOSS' original overdrive sounds when the Turbo switch is turned off. When the Turbo switch is turned on, it produces a much stronger overdrive effect similar to that produced by sophisticated distortion units. The OD-2, however, can reproduce all the delicate nuance of the original guitar sound. The Turbo overdrive circuit produces its unique sounds by fully overdriving a circuit constructed with highly sensitive discrete amplifiers. This method provides the overdriven sounds with a fast transient response and beautiful harmonics, and makes the sounds project well at all control settings. This method also offers

The BOSS Over Drive has been designed to exactly replicate the sound of an overdriven tube amplifier when used in any amplification set-up. Unlike conventional distortion devices, the OD-1 is highly touch-sensitive and will respond to the guitarist's most delicate playing techniques.

The controls on the Over Drive are for Level and Over Drive. The Level control is designed to compensate for level differences between the normal and effect signals. The Over Drive control operates the amount of the Over Drive effect from a very soft, subtle effect to one that is extremely hard.

A distinct advantage of the OD-1 is its ability to adapt to any guitar, producing the Over Drive effect without fundamentally altering the tonal characteristics of the guitar itself.

The SD-1, like its predecessor the OD-1, has been designed to duplicate the sound of an over-driven tube amplifier regardless of what amplifier it is used with. Unlike conventional distortion devices, the SD-1 is highly touch sensitive, and will respond to the guitarist's most delicate playing techniques.

Like the OD-1, the SD-1 features controls for Level and Overdrive, with the addition of a Tone control. The Level control is designed to compensate for level differences between the normal and effect signals. The Overdrive control operates the amount of the Overdrive effect from a very soft, subtle effect to one that is extremely hard.

The Tone control on the SD-1 is active and wide-ranging which allows the instrument to achieve many diverse effects. By changing the Tone control from its center position the SD-1 varies from not changing the guitar's tonality to radical alteration in either bass or

treble direction. The first advantage is the dramatic decrease in noise. This is enhanced by a built-in noise filter. The second advantage is that the OD-2 allows the guitarist to easily obtain any desired feedback without producing high-pitched squeals.

## Specifications

|                        |                                                                              |
|------------------------|------------------------------------------------------------------------------|
| Power                  | 9V Battery, AC Adaptor                                                       |
| Current draw           | 9V DC, 10mA                                                                  |
| Equivalent input noise | -115dBm or less<br>(0.1Hz-10kHz, 100Ω load at center, input short-circuited) |
| Input impedance        | 1MΩ                                                                          |
| Output load impedance  | Over 10kΩ                                                                    |
| Dimensions             | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in.                                         |
| Weight                 | 14 oz.                                                                       |

## Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery, AC Adaptor               |
| Current draw          | 9V DC, 35mA                          |
| S/N ratio             | 80dB                                 |
| Input impedance       | 220kΩ                                |
| Output load impedance | Over 600Ω                            |
| Maximum gain          | 37dB                                 |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                | 14 oz.                               |

treble direction.

Like all BOSS effects, the SD-1 features silent switching, LED on/off indicators, AC adaptors, low noise operation with long-range reliability.

## Specifications

|                  |                                      |
|------------------|--------------------------------------|
| Power            | 9V Battery, AC Adaptor               |
| Current draw     | 9V DC, 35mA                          |
| S/N ratio        | 80dB                                 |
| Input impedance  | 470kΩ                                |
| Output impedance | 10kΩ                                 |
| Maximum gain     | 37dB                                 |
| Dimensions       | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight           | 14 oz.                               |





**DS-2**  
TURBO Distortion



The DS-2 Turbo Distortion is a versatile, professional quality distortion unit with superior sound quality. The DS-2 produces distortion that enhances your playing and allows the subtle notes to be heard. Its low-noise characteristics, a result of Roland's advanced proprietary discrete circuits, make the DS-2 the perfect choice for performing and recording.

Turbo mode I creates a mellow distortion effect with a flat frequency response that lets you maintain a clear, natural sound, even with the instrument's volume turned all the way up. At the highest distortion settings, Turbo mode I provides smooth harmonics and a well-defined distortion effect.

Turbo mode II simulates the sound of an overdriven tube amp and boosts the mid-range and highs to create a heavy distortion sound that is popular with most hard rock and heavy metal musicians.

The DS-2 is the first BOSS Compact Effect Unit with a Remote Jack. When an external footswitch like the FS-5L is connected to this jack, the player can switch instantly between two different types of distortion effects right in the middle of a song.

#### Specifications

|                        |                                      |
|------------------------|--------------------------------------|
| Power                  | 9V Battery, AC Adaptor               |
| Current draw           | 9V DC, 12mA                          |
| Equivalent input noise | -120dBm or less (IHF-A)              |
| Input impedance        | 1MΩ                                  |
| Output load impedance  | Over 10kΩ                            |
| Dimensions             | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                 | 14 oz.                               |



**DS-1**  
Distortion



The DS-1 is an effects device designed to produce variable distortion and sustain effects. The unit's wide range of distortion effects allows the effect to be varied from very soft to very hard.

A level control determines the DS-1's output level so that it can match or contrast with the straight signal. The Distortion control varies the distortion effect over its full range. The third control on the DS-1 is the Tone control which varies the effect from crisp highs to soft lows.

#### Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery, AC Adaptor               |
| Current draw          | 9V DC, 4mA                           |
| Input impedance       | 470kΩ                                |
| Output load impedance | Over 10kΩ                            |
| Maximum gain          | 47dB                                 |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                | 14 oz.                               |



**DF-2**  
SUPER Feedbacker  
& Distortion



Upgraded BOSS' unique "Distortion" and completely new "Feedback" circuits have been incorporated within BOSS' famous Compact Pedal. No matter what kind of guitar or amplifier you use—and no matter where you play—the DF-2 provides you with exactly the feedback you desire. In fact, you can now enjoy feedback even when using a headphone amplifier.

The feedback sound lasts as long as the pedal is pressed. And the Over Tone control determines the balance between the unison and upper octave sound.

The upgraded distortion circuitry can produce a full spectrum of distortion sound. The Tone control tailors the tone color. The Distortion control adjusts the amount of distortion. And the Level control determines the output level of distortion sound to match or contrast it with direct sound.

The 2-mode switching function makes it possible to use a single pedal to select the

normal, distortion, or feedback mode. And LED confirms the operation mode.

#### Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery, AC Adaptor               |
| Current draw          | 9V DC, 10mA                          |
| Input impedance       | 1MΩ                                  |
| Output load impedance | Over 10kΩ                            |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                | 1 lb.                                |



**HM-2**  
Heavy Metal



**MZ-2**  
Digital Metalizer



**DD-3**  
Digital Delay



The HM-2 "Heavy Metal" distortion unit surpasses all other distortion units in quality. It incorporates a newly developed circuitry to produce full-bodied distortion sound that projects well at all volumes and settings. The circuitry features surprisingly wide dynamic range and low noise.

The HM-2 has four major controls. The Distortion control commands all variations of distortion, from subtle modifications to distortion that "screams". The Level control determines the output level to match or contrast it with straight signals. And, unlike conventional distortion units, the HM-2 features two separate tone controls, "Color Mix L" for low frequencies and "Color Mix H" for high. These controls allow the creation of a full and varied range of distortion.

Designed primarily for heavy metal and hard rock musicians, the MZ-2 is a compact stereo distortion unit that easily creates effects previously obtainable only with a variety of expensive studio effects processors.

The MZ-2's six different modes produce crisp, expanded, and spacious distortion effects as well as a distinctive effect that combines a short delay with selective filtering.

When straight distortion is required, switch to single mode (SGL) which creates a hard distortion effect similar to the Turbo-On effect of the OD-2 overdrive effect unit. For more complex and spacious distortion effects, the MZ-2 offers three doubling modes (DOUB I-III) that add digital delay doubling effects to the distorted sound. The result is sound that is a satisfying combination of short delay and selective filtering with powerful distortion. The doubling mode sounds can be made even more spacious by using the MZ-2's

The DD-3 digital delay is extremely compact, yet provides the superb sound quality and versatility of an advanced digital delay unit. The delay time can be adjusted anywhere between 12.5 and 800ms. The frequency response ranges from 40Hz to 7kHz.

The Mode select switch can be used to choose three different delay ranges. The S range is from 12.5 to 50ms, the M range is from 50 to 200ms, and the L range is from 200 to 800ms. Delay time of each range is controlled by the D. Time control. The balance between the direct sound and the delay sound can be set by the E. Level control and the number of repeats can be adjusted by the F. Back control. There are two separate output jacks which make it possible to produce stereo effects. A hold function allows the hold time can be adjusted between 200 and 800ms by the D. Time control when the Mode select

## Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery, AC Adaptor               |
| Current draw          | 9V DC, 10mA                          |
| Input impedance       | 1MΩ                                  |
| Output load impedance | Over 10kΩ                            |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                | 14 oz.                               |

stereo outputs.

The MZ-2's two chorus modes (CHO I, II) produce rich sounds that supplement the distortion with a digital chorus effect. When using the stereo outputs combined with digital delay/chorus effects, it is easy to reproduce some of the most popular effects heard on records today.

## Specifications

|                        |                                      |
|------------------------|--------------------------------------|
| Power                  | 9V Battery, AC Adaptor               |
| Current draw           | 9V DC, 70mA                          |
| Equivalent input noise | -120dBm or less (IHF-A)              |
| Input impedance        | 1MΩ                                  |
| Output load impedance  | Over 10kΩ                            |
| Dimensions             | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                 | 1 lb.                                |

switch is set to the Hold mode. The effect pedal can be used to turn the hold function on and off.

Like other similar BOSS products, the DD-3 features FET silent switching, and an LED on/off and battery condition indicator.

## Specifications

|                       |                                             |
|-----------------------|---------------------------------------------|
| Power                 | 9V Battery, AC Adaptor                      |
| Current draw          | 9V DC, 55mA (the D. Time control at center) |
| Type of A/D converter | 12-bit logarithmic compression              |
| Delay time            | 12.5 (min) to 800 (max) ms                  |
| Residual noise        | -96dBm (IHF-A)                              |
| Input impedance       | 1MΩ (FET input)                             |
| Output load impedance | Over 10kΩ                                   |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in.        |
| Weight                | 1 lb.                                       |



**DSD-3**  
Digital Sampler/Delay

The extremely cost-effective DSD-3 can be used either as a digital sampling unit or as a digital delay. It incorporates a 12-bit A/D/A converter to ensure a frequency response of 40Hz to 7kHz. The DSD-3 enhances your creative possibilities for both recording and performance.

The sampling time can be varied from 200 to 800ms. There are two operation modes—Rec/Play and Play Only. In the Rec/Play mode, recording and replay occur simultaneously. With the Feedback control set at the maximum position, you can overdub another sample sound on pre-recorded sound. In the Play Only mode, the DSD-3 replays the stored sample sound recorded in the Rec/Play mode. The recorded sample sound can be replayed by pressing the pedal or by feeding an external trigger signal into the DSD-3. The Time control allows the pitch of the recorded sample sound to be changed during replay.

The DSD-3 doubles also as a digital delay to offer a delay of 50 to 800ms. The delay time is determined by selecting either the S (50 to 200ms) or L (200 to 800ms) mode and adjusting the Time control. External trigger signals can also be used to control the delay time.

#### Specifications

|                         |                                      |
|-------------------------|--------------------------------------|
| Power                   | 9V (Battery, AC Adaptor)             |
| Current draw            | 9V DC, 45 to 60mA                    |
| Type of A/D/A converter | 12-bit logarithm compression         |
| Delay time              | 50 (min) to 800 (max) ms             |
| Sampling time           | 200 (min) to 800 (max) ms            |
| Residual noise          | -95dBm (THF-A)                       |
| Gain                    | Unity                                |
| Input impedance         | 1MΩ (FET input)                      |
| Output load impedance   | Over 10kΩ                            |
| Dimensions              | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                  | 1 lb.                                |



**RV-2**  
Digital Reverb

The RV-2, the world's first digital reverb pedal, delivers the same superior sound quality found in larger rack units. In a compact design that's perfect for guitarists, the RV-2 provides stunning digital reverb effects through its advanced BOSS proprietary DSP (Digital Signal Processing) LSI technology.

Duplicating the spacious ambience of large halls to intimate club stages, the six reverb modes—Room, two Halls, Plate, Gate Reverb and Panning Delay—allow you to produce an extensive range of reverb effects.

An adjustable reverb time from 0.2—10 seconds lets the player choose the exact effect desired. A built-in pre-equalizer enables you to cut lows and emphasize highs for a bright sound, or go for a rich, warm sound with deep bass and thick midrange.

The RV-2 can produce the most popular types of reverb effects with superb sound quality and low noise. Stereo output jacks are

provided which enable you to add extra spaciousness to reverb sounds or take advantage of the Delay mode's panning effects.

#### Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | AC Adaptor                           |
| Current draw          | 9V DC, 130mA                         |
| Frequency response    |                                      |
| Direct                | 10Hz—30kHz $\pm 1$ dB                |
| Effect                | 30Hz—10kHz $\pm 1$ dB, -3dB          |
| Sampling rate         | 31.25kHz                             |
| Residual noise        | -85dB or less (THF-A)                |
| Input impedance       | 1MΩ                                  |
| Output load impedance | Over 30kΩ                            |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                | 15 oz.                               |



**PS-2**  
Digital Pitch Shifter/Delay

The PS-2 Digital Pitch Shifter/Delay supplies advanced pitch shifting and delay effects and capabilities in a compact package.

A proprietary BOSS custom LSI chip that produces high-speed pitch shifting over a full -1 to +1 octave range, pitch-shifted chorus and octave effects, and a variety of harmony effects is the heart of the PS-2.

For instant and precise octave effects, the PS-2 is equipped with preset +1 and -1 octave modes. A chromatic tuner such as the TU-12 may be connected to the Tuner Out jack to confirm the amount of pitch shift when the Manual mode is used.

Metallic-sounding effects are easily set by mixing the direct sound with pitch-shifted sound of up to +1 octave. To obtain a really thick sound, mix the direct sound with -1 octave pitch-shifted sound. The PS-2 ensures clear effects even when playing chords. For harmony effects, blend the direct sound

with pitch-shifted thirds or fifths.

The PS-2 also performs as a high quality digital delay which provides up to 2,000ms of delay.

#### Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery, AC Adaptor               |
| Current draw          | 9V DC, 60mA                          |
| Pitch shift range     | -1 to +1 octave                      |
| Delay time            | 30ms to 2000ms                       |
| Frequency response    |                                      |
| Direct                | 10Hz to 30kHz, +1dB, -3dB            |
| Effect                | 40Hz to 6kHz, +1dB, -3dB             |
| Residual noise        | -90dBm or less (THF-A)               |
| Input impedance       | 1MΩ                                  |
| Output load impedance | Over 10kΩ                            |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                | 1 lb.                                |



**CE-3**  
Chorus



Combining the Chorus effect, compact size, improved signal-to-noise ratio, dual powering options and FET switching of the highly popular CE-2 with the stereo split capability, plus some remarkable features, the CE-3 is truly an original.

The CE-3 can accept a mono signal input and create a stereo effect through its two outputs, A and B. Controls on the CE-3 are for Delay Rate, Depth, and a switch for adjusting the Stereo Mode of operation.

In Mode I, both the A and B output jacks have an effect + direct signal, but there is a difference. In this mode, the A output is direct with the effect signal in positive phase (direct + effect), while the B output adds the effect signal in reverse polarity (direct - effect). The two output jacks allow either single output of the total effect to one amp, or, with the use of two amps, true Wide Stage Stereo Chorus, the lush swirling, deep effect.



**CE-2**  
Chorus



The CE-2 Chorus features the well known BOSS Chorus effect which imparts a doubling, thickening effect which can enhance and enrich the sound of guitars, keyboards, wind and brass instruments, even vocals without imposing itself or detracting from the sound of the instrument.

The CE-2 provides controls over both Depth of the Chorus effect, and the Rate of its sweep, for precise creative control. The CE-2 Chorus also features one of the finest signal to noise ratios of all compact effects, rated at over 90dB, which makes it ideal for recording applications. Like other Boss Compact effects, the CE-2 features FET silent switching, LED on/off and battery condition indicator, rugged and reliable packaging, and an AC adaptor jack.



**DC-3**  
Digital Dimension



The DC-3 is a fully-digital chorus pedal that produces superior, natural-sounding, studio quality chorus effects. Sounds processed through the unit retain their most subtle characteristics and the DC-3's chorus effect eliminates the wavering found in conventional chorus units, making the DC-3 ideal for use with keyboards and guitars.

The DC-3's digital circuitry combines high-quality digital delay with digital modulation. This produces modulation with perfect two-phase synchronization, resulting in a natural-sounding chorus effect. Many distinctive effect settings can be created by adjusting the Effect Level, Equalizer, Rate and Depth controls.

An original Boss LSI chip is utilized to maintain signal clarity and offer a frequency response of 20Hz to 20kHz which makes the DC-3 perfect for use in the recording studio. As the signal passes through the Equalizer section before the Chorus, the sound may be

In Mode II, the effect signal is assigned to the A output only, and the B output remains unmodified. This Mode II configuration appeared on Roland's well known Jazz Chorus Amplifiers.

## Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery, AC Adaptor               |
| Current draw          | 9V DC, 13mA                          |
| S/N ratio             | Over 90dB (IHF-A)                    |
| Maximum input level   | 0dBm (100Hz) - 10dBm (1kHz)          |
| Input impedance       | 1MΩ                                  |
| Output load impedance | Over 10kΩ                            |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                | 14 oz.                               |

## Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery, AC Adaptor               |
| Current draw          | 9V DC, 13mA                          |
| S/N ratio             | Over 90dB                            |
| Maximum input level   | 0dBm (100Hz) - 10dBm (1kHz)          |
| Input impedance       | 470kΩ                                |
| Output load impedance | Over 10kΩ                            |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                | 14 oz.                               |

modified considerably to produce mellow to piercing effects.

Because the DC-3 is equipped with twin output jacks, a remarkably spacious and rich-sounding effect can be produced. These output jacks also allow you to create a dazzling, dynamic stereo chorus effect when each output is directed to a separate amp.

## Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery, AC Adaptor               |
| Current draw          | 9V DC, 65mA                          |
| Frequency response    | 20Hz to 20kHz (+1, -3dB)             |
| Residual noise        | -100dBm or less (IHF-A)              |
| Input impedance       | 1MΩ                                  |
| Output load impedance | Over 20kΩ                            |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                | 1 lb.                                |



**BF-2**  
Flinger



The BOSS BF-2 Flinger provides quiet, clean performance and full function flexibility while offering all of the advantages of the BOSS Compact format. The BF-2 features a special BBD (Bucket Brigade Device) circuit which greatly reduces the noise which is inherent in most electronic flangers.

The BF-2 includes Manual, Depth, Rate and Resonance control functions. The Manual control determines the delay time of the sound, and is variable from 1 to 13ms. By setting the Manual control fully counterclockwise, the BF-2 gives the effect of a non-sweep filter providing variable equalization and ambience tonalities.

The Depth control sets the sweep range when the Manual control is in a central position. The speed of the sweep is variable from 100ms to 16s using the Rate control. The Resonance control is provided to intensify the flanging effect by regenerating the signal. The 470k $\Omega$  input impedance of the BF-2

makes it ideal for guitar, bass, keyboards, live mix and studio mix situations. This combines with the uncompromised quality and flexibility to make the BF-2 one of the most universally applicable effects devices available.

#### Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery; AC Adaptor               |
| Current draw          | 9V DC, 15mA                          |
| LFO (rate) speed      | 100ms to 16s                         |
| Residual noise        | -95dBm (IHF-A)                       |
| Input impedance       | 470k $\Omega$                        |
| Output load impedance | Over 10k $\Omega$                    |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |

Weight 14 oz.



**HF-2**  
Hi Band Flinger



The sharp, metallic flanging sounds of the BF-2 have long fascinated musicians of all genres. To offer a much greater variety of flanging sounds, BOSS has introduced an improved HF-2 High-Band Flinger.

The HF-2's center frequency for the flanging effect is one octave higher than the BF-2's. The flanging effect can thus be applied only to harmonics without affecting the fundamental notes. This produces extremely clear, light sounds. The HF-2 is very effective in handling the chord accompaniments produced by an electric guitar or the string sounds produced by a synthesizer.

The HF-2 has four controls—Manual, Depth, Rate, and Resonance. The Manual control sets the delay time. The Depth control sets the sweep range. The Rate control determines the sweep speed. And the Resonance control sets the amount of feedback. The FET electronic switching completely eliminates the "click"

noises. The HF-2 offers a sound quality sufficient for studio recording.

#### Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery; AC Adaptor               |
| Current draw          | 9V DC, 15mA (max)                    |
| Delay time            | 0.5 to 6.5ms                         |
| LFO speed             | 100ms to 16s                         |
| Residual noise        | -95dBm (IHF-A)                       |
| Input impedance       | 470k $\Omega$                        |
| Output load impedance | Over 10k $\Omega$                    |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |

Weight 14 oz.



**PH-2**  
SUPER Phaser



The compact PH-2 features 12-stage filter circuitry and custom-built IC chips to produce deep, natural phase-shifting sounds comparable to the sounds produced by larger, much more expensive phase shifters.

On stage or in the studio, with guitars or keyboards, the PH-2 produces all the phase-shifting sounds you'll ever need.

The PH-2 features two operation modes selected by a switch. In mode L, the PH-2 produces deep, mellow sounds suitable for guitar or keyboard accompaniment. By fully activating the 12-stage filter circuitry, the PH-2 produces sharp sounds that add a distinctive flavor to your performance.

The PH-2 has three controls. The Rate control sets the LFO speed. The Depth control adjusts the effect depth. The Resonance control is provided to intensify the phase-shifting effect by regenerating the already phase-shifted signal back through the circuit.

#### Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery; AC Adaptor               |
| Current draw          | 9V DC, 20mA (max)                    |
| Phase shift           | 12 stages (2160°)                    |
| LFO speed             | 100ms to 14s                         |
| Residual noise        | -80dBm or less (IHF-A)               |
| Input impedance       | 1M $\Omega$                          |
| Output load impedance | Over 10k $\Omega$                    |
| Gain                  | Unity                                |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |

Weight 14 oz.



**CS-3**  
Compressor Sustainer

The CS-3 Compressor/Sustainer can apply compression to any electronic or electric instrument with no unwanted distortion. Incorporating a specially developed compression circuit, the CS-3 offers excellent sound quality and versatility for all applications, from live performances to studio recordings.

Four controls are provided for a variety of effects. A Sustain control determines the sustain time. The further it is rotated clockwise, the longer the sustain time. The further it is rotated counterclockwise, the stronger the compression. This allows the CS-3 to operate as a limiter. A Tone control takes the tone color of effect sounds, providing a wider variety of sounds and improving the sound projection. An Attack control determines the attack time over a wide range, allowing any sound, even notes in quick passages, to be clearly compressed. And a Level control adjusts the volume balance between the effect

and normal signals.

## Specifications

|                        |                                      |
|------------------------|--------------------------------------|
| Power                  | 9V Battery, AC Adaptor               |
| Current draw           | 9V DC, 10mA                          |
| Compression range      | 38dB                                 |
| Maximum input level    | +5dBm (at 1kHz)                      |
| Maximum output level   | -10dBm                               |
| Equivalent input noise | -110dBm (IHF-A)                      |
| Input impedance        | 1MΩ                                  |
| Dimensions             | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                 | 14 oz.                               |



**LM-2**  
Limiter

Many sounds in today's music, such as percussive sounds on a synthesizer or thumping and slapping bass guitar sounds, include extremely sharp transients or peaks. Sometimes these transients or peaks may result in amplifier clipping, tape recorder distortion, or even blown speakers. Incorporating a high-performance VCA which ensures low noise operation and introduces no deterioration in tone quality, the LM-2 Limiter eliminates overload by compressing the unwanted transients or peaks which exceed the set threshold level while ensuring superb sound quality at all times.

The LM-2 has four controls—Level, Tone, Threshold, and Release. The level control adjusts the tone color of the effected sound, the tone control adjusts the tone color of the effected sound, the threshold control determines the level where limiting is activated, and the release control determines the time

required for the limiting to completely cancel after the input signal falls below the threshold level.

## Specifications

|                       |                                                                     |
|-----------------------|---------------------------------------------------------------------|
| Power                 | 9V Battery, AC Adaptor                                              |
| Current draw          | 9V DC, 12mA                                                         |
| Residual noise        | -100dBm or less (IHF-A, Level and Tone Controls at center position) |
| Input impedance       | 1MΩ                                                                 |
| Output load impedance | Over 10kΩ                                                           |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in.                                |
| Weight                | 14 oz.                                                              |



**GE-7**  
Graphic Equalizer

The GE-7 Graphic Equalizer is a compact, full function equalizer designed for extensive tonal control of any musical signal. Uses of the GE-7 range from creative tone color control to compensating for deficiencies in room acoustics and/or equipment. The GE-7 includes seven octave bands with a  $\pm 15$ dB maximum boost or cut per band and an overall effect Level control.

The extended frequency range of the GE-7 is ample to cover the fundamental and harmonics of electric bass and guitar, keyboards and vocals. The  $\pm 15$ dB maximum cut or boost per octave band is sufficient for special effect applications and made even more effective by the  $\pm 15$ dB Level control which is used to set any desired balance between direct and effected signals.

The GE-7 is exceptionally quiet and includes all of the standard BOSS compact pedal features with FET silent switching, LED

On/Off indicator and battery level check, non-skid pads, and easy access to the special battery compartment. The GE-7 also includes low draw 9V battery or optional AC adaptor operation.

## Specifications

|                       |                                                    |
|-----------------------|----------------------------------------------------|
| Power                 | 9V Battery, AC Adaptor                             |
| Current draw          | 9V DC, 7mA                                         |
| Frequency centers     | 100Hz, 200Hz, 400Hz, 800Hz, 1.6kHz, 3.2kHz, 6.4kHz |
| Control range         | $\pm 15$ dB                                        |
| Residual noise        | -100dBm (IHF-A)                                    |
| Input impedance       | 220kΩ                                              |
| Output load impedance | Over 600Ω                                          |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in.               |
| Weight                | 1 lb.                                              |



**OC-2**  
Octave



The BOSS OC-2 is a clever re-think of an octave divider. The OC-2 Octave features a superior tracking system that flawlessly tracks any single musical line without annoying "glitches."

The second major innovation on the OC-2 is the sound quality of the note produced. The Octave produces two tones, one that is one octave down, and a second tone that is two octaves down from the note played. The sound of these sub-octaves is deep, bassy and round-sounding, much different from the nasally square-wave sound of previous octave dividers from other companies. The three controls on the OC-2 are Level controls for mixing the Direct Signal, Octave 1 and Octave 2.

The unique OC-2 will be widely used by guitarists to add a bass line to a lead line, but the high quality tracking also makes it usable by the keyboardist (to add an additional voice

to a synthesizer or piano), or the wind or brass player to turn a single part into an ensemble.

#### Specifications

|                               |                                      |
|-------------------------------|--------------------------------------|
| Power                         | 9V Battery, AC Adaptor               |
| Current draw                  | 9V DC, 4mA                           |
| Maximum input level           | -5dBm                                |
| Maximum output level          | 0dBm                                 |
| Minimum operating input level | -60dBm (at 250Hz)                    |
| Equivalent input noise        | -100dBm (IHF-A)                      |
| Input impedance               | 1MΩ                                  |
| Output load impedance         | Over 10kΩ                            |
| Dimensions                    | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |

Weight

14 oz.



**NS-2**  
Noise Suppressor



The NS-2 Noise Suppressor is a new processor designed to enhance all effects by removing unwanted noise that occurs when multiple effects are used. The NS-2 lets all the original tonal characteristics of the sound come through without any loss of nuance. The sound is always clean and clear, allowing the player to use his or her effects with greater finesse and subtlety to achieve more creative results.

The NS-2 surpasses the performance of conventional noise gates by allowing the player to tailor the decay of a sound in relation to the input signal level. The result is highly effective noise suppression with a smooth release that produces a natural, noise-free sound.

A send and return loop is built into the NS-2 to prevent the threshold-level variation problems that occur when a conventional noise gate is inserted at the end of a multiple effects chain. The send and return jacks ensure that the threshold-level is always constant whenever

a different effect is turned on.

The NS-2 is AC-powered with a DC Out jack that can supply power to other units, and a Mute mode allows you to use the NS-2 as a latching mute switch for convenient on-stage tuning.

#### Specifications

|              |                                      |
|--------------|--------------------------------------|
| Power        | 9V Battery, AC Adaptor               |
| Current draw | 9V DC, 20mA                          |
| Dimensions   | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |

Weight

14 oz.



**FT-2**  
Dynamic Filter



The FT-2 Dynamic Filter features a low-pass filter with adjustable Q (resonance) and offers a variety of wah effects. Unlike ordinary wah effects devices, the FT-2 affects only the harmonics of a sound without affecting its fundamental tone. This ensures superb sound projection no matter what instrument is used with the FT-2, from guitar, keyboard, to bass guitar.

The FT-2 offers three operation modes: Up, Down, and Manual. In the Up or Down mode, upward or downward automatic wah effects can be produced. By incorporating a high-speed envelope detector circuit originally developed by BOSS, the FT-2 can produce auto wah effects faster and track more accurately than any conventional wah effects unit. In the Manual mode, the FT-2 can be used as a low-pass filter with adjustable cutoff frequency and resonance, or as a wah pedal by connecting an optional EV-5 Expression

Pedal to the EXP input jack. When used as a wah pedal, the FT-2 never produces the scratch- and pop-noises associated with conventional wah pedals.

A Cutoff Frequency control adjusts the cutoff frequency where the filtering occurs, allowing the FT-2 to accommodate any instrument. A "Q" control varies the wah effects over a wide range from very subtle to extremely intense.

#### Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery, AC Adaptor               |
| Current draw          | 9V DC, 16mA                          |
| Residual noise        | -85dBm (IHF-A)                       |
| Input impedance       | 1MΩ                                  |
| Output load impedance | Over 10kΩ                            |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |

Weight

14 oz.



**GE-7B**  
Bass Equalizer



The GE-7B Bass Equalizer provides seven-band equalization, allowing custom tailoring of the bass guitar's tone color. Each of the seven frequency bands can be cut or boosted in the range of  $-15\text{dB}$  to  $+15\text{dB}$ . The seven bands are one half octave lower than those of the popular BOSS GE-7 guitar equalizer to accommodate the lower frequencies produced by the bass. A Level control is also provided to adjust the relative volume of the direct and effect sounds. It adjusts the volume level of the effect signal between  $-15\text{dB}$  and  $+15\text{dB}$ .

This flexible effects pedal can be used not only to equalize the sound of the bass, but also to compensate for room acoustics and to prevent "howling."

## Specifications

|                       |                                                                          |
|-----------------------|--------------------------------------------------------------------------|
| Power                 | 9V Battery, AC Adaptor                                                   |
| Current draw          | 9V DC, 16mA                                                              |
| Equalizer             | 7 Bands (82Hz, 125Hz, 250Hz, 500Hz, 1kHz, 2kHz, 4kHz), $\pm 15\text{dB}$ |
| Level control         | $\pm 15\text{dB}$                                                        |
| Residual noise        | $-100\text{dBm}$ or less (IHF-A)                                         |
| Input impedance       | 470k $\Omega$                                                            |
| Output load impedance | Over 10k $\Omega$                                                        |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in.                                     |
| Weight                | 14 oz.                                                                   |



**CE-2B**  
Bass Chorus



The CE-2B is a chorus unit designed exclusively for use with a bass guitar, allowing the bass players to enjoy BOSS' unique chorus effects without sacrificing the bass guitar's characteristic richness and punch. The CE-2B applies chorus effect only to the harmonics of the bass sound without affecting its fundamental. Unlike conventional chorus units, the CE-2B will never make a bass sound "muddy."

Three controls are provided to adjust the chorus effect from subtle to extreme. The Rate control sets the speed of chorusing. The Effect Level control determines the volume level of processed sound in relation to the unaffected bass sound. The Depth control adjusts the depth of chorusing.

## Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery, AC Adaptor               |
| Current draw          | 9V DC, 10mA                          |
| Residual noise        | $-100\text{dBm}$ or less (IHF-A)     |
| Maximum input level   | 0dBm (at 100Hz)                      |
| Input impedance       | 470k $\Omega$                        |
| Output load impedance | Over 10k $\Omega$                    |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                | 14 oz.                               |



**BF-2B**  
Bass Flanger



The BF-2B is a flanging unit for use with the bass guitar. It applies flanging effects only to the harmonics of the bass sound without affecting the fundamental. Unlike conventional flanging units designed for the electric guitar, the BF-2B produces flanging effects without diminishing the punch and tonal characteristics of the bass sound.

Four controls vary flanging effects from subtle chorus or vibrato to extreme detuning. The Manual control sets the delay time. The Depth control adjusts the sweep range. The Rate control determines the sweep speed. The Resonance control sets the amount of feedback.

## Specifications

|                       |                                      |
|-----------------------|--------------------------------------|
| Power                 | 9V Battery, AC Adaptor               |
| Current draw          | 9V DC, 14mA                          |
| Delay time            | 0.5 to 6.5ms                         |
| LFO rate              | 100ms to 16s                         |
| Residual noise        | $-95\text{dBm}$ (IHF-A)              |
| Input impedance       | 470k $\Omega$                        |
| Output load impedance | Over 10k $\Omega$                    |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H)in. |
| Weight                | 14 oz.                               |





**PSM-5**  
Power Supply  
& Master Switch



The PSM-5 is a regulated power supply, capable of powering up to five 9V BOSS effects, (or other effects of a similar design). The PSM-5 operates on AC power, and comes with a PSA Series Adaptor, which plugs into any conventional AC outlet, to give continuous operation without worry of battery run-down.

A parallel DC cord with five outlets comes with the PSM-5. This connects to the rear of the PSM-5, and to the AC Adaptor jack on the rear of each BOSS compact effect.

But the PSM-5 is really much more than a conventional power supply, as it's also an effect loop selector at the same time. The Send jack on the left side of the PSM-5 connects to the input of the first effect in the chain. Then connect the output of the first effect to the input of the second effect, and so on. The last effect in the chain connects back to the Return jack on the right side of the PSM-5. The guitar (or other instrument) connects to the Guitar jack on the PSM-5, and the Amp

connects to the Amp jack. These connections yield two distinct loops, one running through the effects, and one going from guitar directly to the amp, bypassing the effects completely. A simple push of the footswitch selects one of the two loops. An LED indicator lights up when the effect loop is in operation.

The amazing PSM-5 powers your effects, and controls them—all in one box.

#### Specifications

|                       | AC Adaptor                            |
|-----------------------|---------------------------------------|
| Power                 |                                       |
| Input impedance       |                                       |
| Guitar                | 1MΩ                                   |
| Return                | 1MΩ                                   |
| Output load impedance |                                       |
| Amp                   | Over 10kΩ                             |
| Send                  | Over 10kΩ                             |
| Gain                  | Unity                                 |
| Dimensions            | 2-3/4(W) x 4-15/16(D) x 2-3/16(H) in. |
| Weight                | 12 oz.                                |



## BCB-6 CARRYING BOX

As the BOSS line of products has expanded, adding ever more popular effects, BOSS has received many requests for a carrying case that holds multiple BOSS effects, as well as other similarly-sized effects. The BOSS design engineers have responded in another brilliantly creative application of form and function in the design of the BOSS Carrying Box System that solves many of the

musician's problems in dealing with repeated set-up of effects.

The BCB-6 is a case, capable of holding, for transportation and performance, six effect pedals, or five pedals and the PSM-5 Power Supply. Designed to hold effects made by other manufacturers as well as BOSS, the BCB-6 transforms from a carrying case into an effects board simply by removing the lid.

Not only does the BCB-6 hold pedals for performance, it also cleans up the wiring tangle often associated with effect boards. The BCB-6 comes complete with five short cords to connect the effects in series. When used with the PSM-5, virtually all the connection cords are hidden, for a clean, organized system.

When the PSM-5 is inserted in the furthest position on the right, all the DC power cords are hidden under the removable name plate. Also included with the BCB-6 is a two storage compartments. Rubber non-skid pads on the bottom of the unit keep it from sliding on stage.

Furnished in a handsome grey color, the impact-resistant BCB-6 case is rugged enough to take any shock from transport. Also contained on the BCB-6 are two storage compartments. Rubber non-skid pads on the bottom of the unit keep it from sliding on stage.

#### Specifications

|                      |                                      |
|----------------------|--------------------------------------|
| Effect accommodation | 6 units                              |
| Dimensions           | 24-15/16(W) x 11(D) x 4-15/16(H) in. |
| Weight               | 4 lb. 7 oz.                          |
| Accessories          | Connection cords                     |

Page 13 is missing



**TU-100**  
Automatic Tuner



**TU-12**  
Automatic Tuner



**TU-12H**  
Automatic Tuner

The TU-100 is a portable automatic tuner for portable radios. It features a large LCD display showing the frequency and signal strength. The device is compact and easy to use, with a simple control panel.

The TU-12 is a smaller, more compact automatic tuner. It also features an LCD display and is designed for portability. It is suitable for use with a variety of portable radios.

The TU-12H is a high-performance automatic tuner. It includes advanced features such as memory storage for favorite frequencies and a powerful speaker. It is designed for users who require a more sophisticated tuning experience.

**CONSTRUCTION**  
 The tuners are constructed from high-quality materials to ensure durability and reliable performance. They are designed to be resistant to environmental factors such as temperature and humidity.

**OPERATION**  
 The tuners are easy to operate, with intuitive controls and clear instructions. They provide accurate frequency readings and automatic tuning capabilities, making them ideal for both casual and professional use.



## TU-12S CHROMATIC TUNER



The TU-12S Chromatic Tuner is a low cost, highly accurate tuner with a variety of helpful features. With the TU-12S, a wide variety of instruments including wind and string instruments, keyboards, and folk instruments, can be tuned easily and precisely.

Because the TU-12S employs the same computer chip as the more advanced TU-12 and TU-12H tuners, it offers the same basic performance characteristics at a more attractive price.

The TU-12S automatically detects and indicates all twelve chromatic notes ranging from C1 to B5. This exceptionally wide tuning range ensures the precise tuning of practically any instrument.

To simplify the tuning of acoustic instruments, the TU-12S features a sensitive, built-in condenser microphone.

The new TU-12P is an ultra-compact, lightweight chromatic tuner featuring accurate performance and sophisticated, versatile tuning functions.

Although the TU-12P is only slightly larger than a ballpoint pen, it includes an easy-to-read liquid crystal display and built-in condenser microphone. Designed for versatility, the TU-12P is suitable for a wide range of keyboard, wind, and string instruments, including electric and acoustic guitars.

Along with a phone jack input, the TU-12P features a built-in pickup that enables cordless tuning of an electric guitar (not compatible with guitars fitted with piezoelectric pickups).

The TU-12P's ability to detect pitch over a five-octave range from C1 to B5 makes it ideal for use with many different instruments. The built-in LCD displays input notes over the entire five-octave range.

Concert pitch can be adjusted within the range of 440–445Hz in 1Hz steps. This is a great advantage when you want to tune in concert pitches other than standard A-440.

### Specifications

|                     |                                                       |
|---------------------|-------------------------------------------------------|
| Power               | 9V Battery, AC Adaptor                                |
| Current draw        | 9V DC, 15mA                                           |
| Tuning range        | C <sub>1</sub> (32.70Hz) to B <sub>5</sub> (987.77Hz) |
| Pitch accuracy      | ±1 cent                                               |
| Standard oscillator | Quartz (3579545MHz)                                   |
| Concert pitch       | 440 to 445Hz, 1Hz steps                               |
| Dimensions          | 5-1/16(W) x 2(D) x 1-1/16(H)in.                       |
| Weight              | 4 oz.                                                 |



## TU-12P CHROMATIC TUNER

Concert pitch adjustments can be made in 1Hz increments from 440Hz to 444Hz. Acoustic instruments are easily tuned with the TU-12P's sensitive built-in condenser microphone. The TU-12P is powered by a small lithium battery, making it extremely portable and convenient to use anywhere.

### Specifications

|                     |                                                       |
|---------------------|-------------------------------------------------------|
| Power               | 3V Battery, CR2032 manganese-lithium battery x1       |
| Tuning range        | C <sub>1</sub> (32.70Hz) to B <sub>5</sub> (987.77Hz) |
| Pitch accuracy      | ±1 cent                                               |
| Standard oscillator | Quartz (4194304MHz)                                   |
| Concert pitch       | 440 to 444Hz, 1Hz steps                               |
| Dimensions          | 5-13/16(W) x 1(D) x 1-1/16(H)in.                      |
| Weight              | 1.8 oz.                                               |



(ACOUSTIC VERSION)



(ELECTRONIC VERSION)

## DR-220A/DR-220E

Dr. Rhythm Dr. Rhythm

The DR-220 Dr. Rhythm offers the ease of operation that made the former Dr. Rhythm models so popular plus extremely realistic digital sound sources. It features 11 different digital sound sources. With a 12-bit D/A converter converting digital data into audio signals, the sound quality of the DR-220 is comparable to that of much more expensive digital drum machines.

### DR-220A Sound Sources

Bass Drum, Snare Drum, Rim Shot/Hand Clap, Low Tom/Mid Tom/High Tom, Closed High-Hat/Open High-Hat, Crash Cymbal/Ride Cymbal

### DR-220E Sound Sources

Electronic Bass Drum, Electronic Snare Drum, Electronic Low Tom/Electronic Mid Tom/Electronic High Tom, Cowbell/Slap, Closed High-Hat/Open High-Hat, China Cymbal/Cup

The DR-220 offers thirty-two different, easy-to-use preset rhythm patterns and can store thirty-two programmable rhythm patterns.

You can create a programmable rhythm pattern either by step writing or tap (real-time) writing. These writing methods can be interchanged in writing a rhythm pattern. A Forward/Backward function is provided to facilitate step writing. You can select the step you wish to write by using just two buttons. It's easy to copy rhythm patterns and to create pattern variations. An easy-to-see LCD (Liquid Crystal Display) makes the programming even easier.

The DR-220 can store up to eight songs (each up to 128 measures) which are written by combining the sixty-four rhythm patterns. Longer songs (up to 256 measures) can be programmed by borrowing memory from the next consecutive track. Any song can be played back repeatedly.

You can even play all of the digital sound sources by tapping the sound source buttons. This is possible even as a song is being played. The volume of each sound source and the total accent level can be individually set at any one

of six levels. Total volume can also be adjusted using a sliding control.

Both Trigger In and a Trigger Out jacks are provided to offer a variety of applications using trigger signals. The DR-220A uses the Rim Shot to output the trigger signal while the DR-220E uses the Cowbell.

### Specifications

|                         |                                                                                              |
|-------------------------|----------------------------------------------------------------------------------------------|
| Power                   | Batteries (UM-3 x 4), AC Adaptor                                                             |
| Memory                  | 32 Preset Rhythm Patterns, 32 Programmable Rhythm Patterns, 8 Songs (each 128 measures long) |
| Pattern writing methods | Step Write, Tap Write                                                                        |
| Tempo                   | 40 to 250 beats per minute                                                                   |
| Dimensions              | 9-7/16(W) x 2-15/16(D) x 1-1/4(H) in.                                                        |
| Weight (with batteries) | 12 oz.                                                                                       |
| Accessories             | UM-3 Battery x 4, Soft Case                                                                  |



## DB-11 Music Conductor

The DB-11 features four convenient functions. Yet it's compact enough to carry in the pocket and extremely easy to use. Available in white, red, blue, or black, the DB-11 also comes with a headphone jack for greater convenience.

The DB-11 functions as a metronome in the Metronome mode. Four kinds of rhythm (♩, ♪, ♪♩, and ♪♩♩), as well as tempo (35 to 250 beats per minute), and the number of beats per measure (0 to 6) can be selected and displayed. The DB-11's precise digital

circuitry ensures easy, accurate settings. The sound of the built-in speaker and the flashing of the LEDs indicate the rhythm and beat. The set tempo is protected by a back-up battery even when the DB-11 is turned off.

The DB-11 can measure tempo in the Tap mode. As you tap the Tap button, the DB-11 indicates the tempo of the tapping on the display. You can measure the tempo of the recorded music by tapping the Tap button in time with it. In addition, the metronome function can then operate at the tempo

measured in the Tap mode. The measured tempo is protected by a back-up battery even when the DB-11 is turned off.

The DB-11 functions as a chromatic oscillator in the Tuner mode. The standard pitch can be set between 438 and 445-Hz in 1-Hz steps. The DB-11 can then chromatically produce the sound of any note from C<sub>4</sub> to B<sub>4</sub>. You can tune any instrument anywhere using any note.

In the Stop-Watch mode, the DB-11 can measure and indicate any time up to 59 minutes and 59.99 seconds long.

### Specifications

|                 |                                                                                                                                       |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Power           | 6V DC, CR2032 Manganese-Lithium Battery × 2                                                                                           |
| Battery life    | 150 hours continuously used in the tempo of 100 beats per minute                                                                      |
| Metronome mode  | Tempo (35 to 250 beats per minute), Beat (0, 1, 2, 3, 4, 5, 6), Rhythm (♩, ♪, ♪♩, ♪♩♩), Accuracy (±0.1%)                              |
| Tap mode        | Tempo (35 to 250 beats per minute with High/Low Indicator), Beat (0, 1, 2, 3, 4, 5, 6)                                                |
| Tuner mode      | Note Range (C <sub>4</sub> to B <sub>4</sub> , Chromatic), Standard Pitch (438 to 445Hz, 1Hz steps), Accuracy (Within ±1 cent, 0.06%) |
| Stop-watch mode | Time Range (0 to 59 minute 59.99 seconds)                                                                                             |
| Speaker         | Piezo Electric Speaker                                                                                                                |
| Dimensions      | 1-15/16(W) × 3-5/16(D) × 1 1/8(H) in.                                                                                                 |
| Weight          | 2 oz.                                                                                                                                 |



## DB-66 Dr. Beat

For years musicians have struggled with mechanical metronomes that are often less than accurate and prone to bad function. Electronic metronomes have provided the necessary accuracy, yet no metronome has enabled the musician to work efficiently with complex time signatures and syncopation.

But BOSS solves the problems with the DB-66 Dr. Beat Digital Metronome. It features four basic rhythm units: quarter note, eighth

note, sixteenth note, and eighth note triplets (♩, ♪, ♪♩, ♪♩♩) with individual level controls for each to accentuate the rhythm. The beat can be set at 0, 1, 2, 3, 4, 5, or 6 beats per measure. A chime sounds on the first beat of each measure. Two LEDs are provided for visual monitoring. The first LED lights on the first beat of the measure, the second on the remaining beats. When the beat is set at 0, only the first LED lights. The

tempo can be varied between 35 and 250 beats per minute. The headphone jack (a mini stereo jack) is convenient for drum practice.

The DB-66 offers several other amazing features. It has a large digital display that indicates the tempo and beat. In the Tap mode, the musician can confirm the accuracy of the rhythm. As the musician taps the Tap button, the display indicates the tempo of the tapping. This function is also convenient for confirming the tempo of recorded music. And if the Beat and Down switches are pressed at the same time, the DB-66 produces the note A<sub>4</sub> (440Hz, ±0.2 cents) for guitar and bass guitar tuning. The DB-66 also comes complete with a carrying case.

### Specifications

|                   |                                                                                               |
|-------------------|-----------------------------------------------------------------------------------------------|
| Power             | 9V Battery, AC Adaptor                                                                        |
| Current draw      | 9mA (in the stop mode)                                                                        |
| Tempo             | 35 to 250 beats per minute                                                                    |
| Tempo accuracy    | ±0.1%                                                                                         |
| Beats             | 0, 1, 2, 3, 4, 5, 6                                                                           |
| Tuning note       | A <sub>4</sub> (440Hz, ±0.2 cents)                                                            |
| Rhythm indicators | Audio beep and dual LEDs                                                                      |
| Controls          | Rhythm volume × 4 (♩, ♪, ♪♩, ♪♩♩)                                                             |
| Switches          | Beat level, Total volume, Beat, Down, Up, Start/Stop (also functions as the Tap switch), Mode |
| Dimensions        | 6-11/16(W) × 5-3/4(D) × 1-5/8(H) in.                                                          |
| Weight            | 11 oz. without battery                                                                        |
| Accessory         | Soft case                                                                                     |



## DRP-I/II/III Dr. PAD

Dr. PAD is the perfect compact digital percussion instrument for any musician and any type of music. By simply hitting its touch-sensitive pad, you can play clear, articulate percussive sounds. Dr. PAD is available in three versions (DRP-I/II/III), each with six of today's

most popular PCM percussion sounds. The Sound Select switch makes it easy to choose the one you want. And thanks to its state-of-the-art digital circuitry, Dr. PAD offers sound quality equal to larger, more expensive units.

|   | DRP-I                               | DRP-II                             | DRP-III        |
|---|-------------------------------------|------------------------------------|----------------|
| 1 | Snare Drum 1<br>(with Gated Reverb) | Bass Drum 1<br>(with Gated Reverb) | Smashing Glass |
| 2 | Snare Drum 2<br>(with Gated Reverb) | Bass Drum 2<br>(with Gated Reverb) | Cowbell        |
| 3 | Tambourine                          | Electronic Tom                     | Timbale        |
| 4 | Hard Clap                           | Steel Drum                         | Scratch        |
| 5 | Cymbal                              | Small Gong                         | Qujada         |
| 6 | Timpani                             | Star Chime                         | Large Gong     |

The touch sensitive pad allows you to control volume according to how hard you strike the pad, and a special Minimum Sens control adjusts the pad's sensitivity. In addition, a variety of controls are provided for more versatility. A Pitch control determines the pitch of the sound source. The pitch can also be controlled by the force applied to the pad; the greater the force, the higher the pitch. A Pitch Sens control is provided to adjust range of this touch-responsive pitch control. A Decay control sets the time at which the sound dies away after activation. A Sweep Range control determines pitch bend depth and direction.



## MPD-4 MIDI PAD

The MPD-4 MIDI Pad is a versatile and affordable MIDI pad controller unit. MIDI channel can be assigned to any one of sixteen channels, allowing any MIDI-controlled sound source, from a drum machine to a sampler or synthesizer, to be activated by hitting its touch-sensitive pad. All changes in hitting force, no matter how subtle, can be transmitted from the MPD-4 to the connected MIDI instrument. When a MIDI synthesizer is used as a sound source, the gate time (the time during which the sound is produced) can

be controlled by the hitting force.

In addition to the MPD-4's touch-sensitive pad, you can connect up to three external pads. BOSS' BP-1 Pad Controller for example, to the MPD-4's three External Pad jacks. You can form your own MIDI pad setup as desired.

Four different MIDI note numbers can be assigned individually to the MPD-4's pad and three external pads connected to it. The MPD-4 can memorize two different combinations of the MIDI note number assignment for the pads. You can select either one using a footswitch, such as BOSS' FS-5L or FS-5U, connected to a Foot Switch jack. There are two switching modes to select the two combinations. In one mode, the two combinations are alternately selected by turning the footswitch on and off. In the other mode, the MIDI note numbers assigned to the MPD-4's pad is changed by the footswitch, but the MIDI note numbers assigned to the external pads are not. In addition, the MPD-4 transmits the MIDI note message when the footswitch is turned on. When the two MIDI note numbers of MPD-4's pad are assigned to the closed and open high-hats of a MIDI-compatible drum machine, you can use the MPD-4's pad and a momentary (unlatch) footswitch, BOSS FS-5U for instance, as if they were a high-hat cymbal and its pedal.

### Specifications

|              |                               |
|--------------|-------------------------------|
| Power        | 9V Battery, AC Adaptor        |
| Current draw | 9V DC, 30mA                   |
| Dimensions   | 6(W) x 6-5/8(D) x 2-3/8(H)in. |
| Weight       | 2 lb. 7 oz.                   |

When set to center position, no bending occurs. Turned clockwise, upward pitch bend is pronounced. Turning counterclockwise deepens downward pitch to reach a depth set by the Sweep Range control. A Sweep Time control sets the time required for the pitch bending to reach the depth set by the Sweep Range control.

Dr. PAD has extra convenient features, too. Mix allows you to blend the output from a second Dr. PAD via a special Mix In jack, so you can combine several units without using a mixer. Individual volumes are balanced with the level control on each unit. An optional BPH-2 Pad Holder allows two Dr. Pads to be mounted on a tom or cymbal stand.

Dr. PAD has 9V DC In and Out jacks for use with either a 9-volt battery or BOSS PSA-series AC adaptor. By connecting the Out jack to the In jack of another Dr. PAD, you can power up to six units simultaneously with a single PSA-series AC adaptor. And a special "In" jack accepts trigger signals, allowing Dr. PAD to act as an external sound source for a BOSS DR-220 Dr. Rhythm.

### Specifications

|                       |                               |
|-----------------------|-------------------------------|
| Power                 | 9V Battery, AC Adaptor        |
| Current draw          | 9V DC, 30mA                   |
| Dimensions            | 6(W) x 6-5/8(D) x 2-3/8(H)in. |
| Weight (with battery) | 2 lb. 7 oz.                   |

## BP-1 PAD CONTROLLER



The BP-1 Pad Controller features a touch-sensitive hitting pad. By striking the pad, you can dynamically activate a sample sound recorded in the PSD-10. A Sens control is provided to adjust the pad's sensitivity. In addition, the BP-1 can be used as an external pad for BOSS MPD-4 MIDI Pad or Roland OctaPad II PAD-80.

• Output impedance: 10kΩ • Dimensions: 6(W) x 5-11/16(D) x 2-5/16(H)in. • Weight: 1 lb. 10 oz.

## BPH-2 PAD HOLDER



The BPH-2 mounts one or two BP-1s, Dr. Pads, or MPD-4s, on a tom stand, etc.

**Page 18 is missing**

**EXPRESSO PANEL PANEL VOLUMES/TEST INSTRUMENTS**

**EV-10** *Electronic Volume*  
 The EV-10 is a small, portable, and easy-to-use electronic volume. It features a single control knob and a single input jack. The EV-10 is designed to be used with a variety of electronic instruments, including oscilloscopes, signal generators, and logic analyzers. The EV-10 is available in two versions: a standard version and a version with a built-in signal generator.

**PV-50H/50L** *Variable Power*  
 The PV-50H/50L is a variable power supply. It features a single control knob and a single output jack. The PV-50H/50L is designed to be used with a variety of electronic instruments, including oscilloscopes, signal generators, and logic analyzers. The PV-50H/50L is available in two versions: a standard version and a version with a built-in signal generator.

**PV-100** *Variable Power*  
 The PV-100 is a variable power supply. It features a single control knob and a single output jack. The PV-100 is designed to be used with a variety of electronic instruments, including oscilloscopes, signal generators, and logic analyzers. The PV-100 is available in two versions: a standard version and a version with a built-in signal generator.

**PV-200** *Variable Power*  
 The PV-200 is a variable power supply. It features a single control knob and a single output jack. The PV-200 is designed to be used with a variety of electronic instruments, including oscilloscopes, signal generators, and logic analyzers. The PV-200 is available in two versions: a standard version and a version with a built-in signal generator.

**PS-6L/5U** *Power Supply*  
 The PS-6L/5U is a power supply. It features a single control knob and a single output jack. The PS-6L/5U is designed to be used with a variety of electronic instruments, including oscilloscopes, signal generators, and logic analyzers. The PS-6L/5U is available in two versions: a standard version and a version with a built-in signal generator.



## RRV-10 DIGITAL REVERB



The RRV-10 Digital Reverb is one of the most cost effective digital reverb units available today. Incorporating a specially developed Digital Signal Processing LSI, the compact, easy-to-use RRV-10 offers sound quality and versatility comparable to much more expensive digital reverb units.

The RRV-10 features nine modes to simulate a variety of acoustic environments, from a small room to a large hall as well as a variety of effects including reverse reverb, gated reverb, and multi-tapped delay. Once one of nine Reverb modes is selected, the RRV-10 automatically sets the optimum high-frequency damping and the pre-delay time to the selected mode. The reverb time can be

continuously adjusted between 0.2 and 10 seconds using the Decay Time control.

Featuring a special Input Cancellation system, the RRV-10 allows smooth transitions from effect to normal sound—when the effect is turned off, the incoming signal is cut off at the input, thus the processed signal completes its cycle at the output as determined by the reverb settings.

A pre-equalizer is provided. It tailors the tone color of the sound before it goes through the reverb circuitry. A newly designed noise reduction circuit ensures low noise operation at all times. And Stereo output jacks allow for broad, realistic stereo reverb effects.

### Specifications

|                    |                           |                                                                 |
|--------------------|---------------------------|-----------------------------------------------------------------|
| Input level        | input impedance           | -20dBm/1M $\Omega$ , -10dBm/47k $\Omega$                        |
| Output level       | output impedance          | -20dBm/2k $\Omega$ , -10dBm/2k $\Omega$                         |
| Output load        | impedance                 | Over 10k $\Omega$                                               |
| Frequency response |                           | 10Hz to 30kHz 1dB (Direct), 30Hz to 10kHz 1dB (Effect) 31.25kHz |
| Sampling rate      | A/D-D/A conversion system | 12-bit converter plus analog logarithm compression              |
| Residual noise     |                           | -100dBm or less (IHF-A, Level switch at -20dBm)                 |
| Power              |                           | 9V DC by PSA series AC Adaptor or RPW-7                         |
| Current draw       |                           | 9V DC, 120mA                                                    |
| Dimensions         |                           | 8-9/16(W) x 6-5/8(D) x 1-3/4(H)in.                              |
| Weight             |                           | 2 lb.                                                           |
| Accessories        |                           | DC Cord, Rubber Foot x 4                                        |



## RPS-10 DIGITAL PITCH SHIFTER/DELAY



Created by applying BOSS' advanced digital technology, the affordable RPS-10 Digital Pitch Shifter/Delay can function either as a digital pitch shifter or as a digital delay.

When functioning as a digital pitch shifter, the RPS-10 can continuously shift the pitch of input sound to anywhere between one octave below and one octave above with a frequency response of 40Hz to 15kHz. Two operation modes—Mode A and Mode B—are provided. Thanks to a high-speed pitch shift circuitry, Mode A produces virtually no time lag between the effect and normal sounds. Mode B, on the other hand, shifts the pitch with a longer cross-fade cycle, thus eliminating annoying tremolo-like sounds associated with conventional pitch shifters. Mode B is especially effective for a wider pitch shifting. In addition, a special Invert function allows the pitch-shifted sound to be played backward.

Interesting reverse playback sounds can then be easily enjoyed.

A Tuner Out jack is provided. By connecting a tuner to this jack, you can visually confirm the degree of pitch shifting. When the pitch shift function is not engaged, this jack outputs the input signal, allowing the connected instrument to be tuned without reconnecting it to the tuner. A Keyboard Control jack is also provided. Once connected to the RPS-10, a keyboard can be used to control the degree of pitch shifting.

When functioning as a digital delay, the RPS-10 offers a delay ranging from 25 to 800ms with a frequency response between 40Hz and 15kHz. The Feedback control sets the number of repeats. The Invert function can also be applied to the delay effect.

The hold function and the effect can be turned on and off by remote control using

BOSS' FS-5U or FS-5L footswitch. Phone and RCA pin jacks are provided for both input and output. A Level switch simultaneously sets the input and output levels at -20 or -10dBm. The RPS-10 can be used with a wide variety of devices.

### Specifications

|                                |                  |                                                                    |
|--------------------------------|------------------|--------------------------------------------------------------------|
| Input level                    | input impedance  | -20dBm/1M $\Omega$ , -10dBm/47k $\Omega$                           |
| Output level                   | output impedance | -20dBm/2k $\Omega$ , -10dBm/2k $\Omega$                            |
| Output load                    | impedance        | Over 10k $\Omega$                                                  |
| Frequency response             |                  | 10Hz to 30kHz 1dB (Direct), 40Hz to 15kHz 1dB (Effect) 25 to 800ms |
| Pitch shift range              |                  | -1 to +1 Octave                                                    |
| Delay time                     |                  | -100dBm or less (IHF-A, Level switch at -20dBm)                    |
| Note range of keyboard control |                  | C $_4$ (523Hz) to C $_7$ (2,093Hz)                                 |
| Note range of tuner output     |                  | C $_3$ (65.4Hz) to C $_6$ (2,616Hz)                                |
| Power                          |                  | 9V DC by PSA-series AC Adaptor or RPW-7                            |
| Current draw                   |                  | 9V DC, 100mA                                                       |
| Dimensions                     |                  | 8-9/16(W) x 6-5/8(D) x 1-3/4(H)in.                                 |
| Weight                         |                  | 2 lb.                                                              |
| Accessories                    |                  | DC Cord, Rubber Foot x 4                                           |







## RPD-10 DIGITAL PANNING DELAY



The RPD-10 Digital Panning Delay is a high quality delay unit which offers a variety of interesting and highly usable effects. The RPD-10 features a built-in stereo panning feature, an infinite hold function, and a stereo Chorus mode which produces a rich chorus effect.

The RPD-10 offers an adjustable delay range with a maximum setting of 2,000ms and a minimum setting of 15ms. The tone and delay level can be controlled to set the EQ and mix as you desire. Even when set at maximum delay, frequency response always stays flat with a bandwidth of 20Hz to 15kHz to reproduce almost any sound source faithfully.

Because the RPD-10 has built-in panning which enables you to achieve the kind of delay effects that normally require two conventional

units, the unit allows you to use long delay times more creatively.

A Direct Cancel switch is also built-in that makes it easy to use the RPD-10 with a mixer.

### Specifications

|                    |                                                  |
|--------------------|--------------------------------------------------|
| Input level/       | -20dBm/1M $\Omega$ , -10dBm/47k $\Omega$         |
| Input impedance    | -20dBm/2k $\Omega$ , -10dBm/2k $\Omega$          |
| Output level/      | Over 10k $\Omega$                                |
| Output impedance   | 20k $\Omega$ to 15k $\Omega$ (in the Delay Mode) |
| Impedance          |                                                  |
| Frequency response |                                                  |

|                         |                                                                                     |
|-------------------------|-------------------------------------------------------------------------------------|
| A/DIA conversion system | Analog logarithm compression plus 12-bit converter                                  |
|                         | Analog logarithm compression plus 8-bit converter (Delay time range set at 2,000ms) |
| Residual noise          | -100dBm (min.) (HF-A, Level switch at -20dBm)                                       |
| Power                   | 9V DC by PSA series AC Adaptor or RPW-7                                             |

|              |                                    |
|--------------|------------------------------------|
| Current draw | 9V DC, 100mA                       |
| Dimensions   | 8-3/16(W) x 6-5/8(D) x 1-3/4(H)in. |
| Weight       | 2 lb.                              |
| Accessories  | DC Cord, Rubber Foot x 4           |



## RDD-20 DIGITAL DELAY



The RDD-20 digital delay provides numerous superb functions and features ideal for use in a variety of situations from home recording to performance. It provides a delay of from 0.75 to 400ms. The delay time is determined by a 9-stage Range selector and a Fine control.

A 12-bit PCM system plus analog logarithm compression ensures superb sound quality. The frequency response ranges from 20Hz to 15kHz.

In addition to controls for Modulation Rate, Modulation Depth, Feedback Level, and Delay Level, a Delay Time control is also provided to produce natural echo effects. This is especially effective for vocals.

Phone and RCA pin jacks are provided for both input and output. A level select switch

simultaneously sets the input and output level at -10 or -20dBm. The RDD-20 can be used with musical instruments, recording equipment, even hi-fi equipment.

Two outputs—Mix Out and Delay Out—are provided for an array of applications. The Mix Out puts out both direct and delayed signals, while the Delay Out puts out only delayed signals.

The Remote jack allows the on and off of the effects to be remote-controlled by using an FS-5L footswitch.

The Modulation BUS jack and the Polarity switch allow modulation of the two RDD-20's to be interlocked. All effects can be reproduced in stereo with incredible depth and clarity.

### Specifications

|                    |                                                                                      |
|--------------------|--------------------------------------------------------------------------------------|
| Input level/       | -20dBm/1M $\Omega$ , -10dBm/47k $\Omega$                                             |
| Input impedance    | -20dBm/2k $\Omega$ , -10dBm/2k $\Omega$                                              |
| Output level/      | Over 10k $\Omega$                                                                    |
| Output impedance   | 20k $\Omega$ to 15k $\Omega$ (1dB Effect), 10k $\Omega$ to 60k $\Omega$ (1dB Direct) |
| Impedance          |                                                                                      |
| Frequency response |                                                                                      |

|                           |                                                    |
|---------------------------|----------------------------------------------------|
| A/D-DIA conversion system | 12-bit converter plus analog logarithm compression |
| Delay time                | 0.75 to 400ms                                      |
| Power                     | 9V DC by PSA series AC Adaptor or RPW-7            |

|              |                                    |
|--------------|------------------------------------|
| Current draw | 9V DC, 120mA                       |
| Dimensions   | 8-3/16(W) x 6-5/8(D) x 1-3/4(H)in. |
| Weight       | 2 lb.                              |
| Accessories  | DC Cord, Rubber Foot x 4           |





## RCL-10 COMPRESSOR/LIMITER



The extremely cost-effective RCL-10 offers all the functions of a compressor, limiter, expander and noise gate units. Incorporating high-performance VCAs, the RCL-10 provides outstanding sound quality with an exceptionally high S/N ratio and low distortion.

The Compressor/Limiter/Expander section features the Threshold, Ratio, Attack, and Release controls, while the Noise Gate section features Threshold and Decay controls.

Any desired effect for any possible purpose can be accurately produced.

The RCL-10 features phone and RCA pin jacks for both input and output as well as a level select switch which simultaneously sets the input and output level at -10 or -20dBm for connection to a variety of other devices. It can be remote-controlled by connection with

an FS-5L footswitch.

The Key-In jack allows the RCL-10 to be used as a de-esser or as a means of producing gated reverb. Overload and Gain Reduction indicators let the user confirm the operation status at a glance. The Stereo Link jacks are provided to interlock the operation of two RCL-10's.

### Specifications

|                  |                                            |
|------------------|--------------------------------------------|
| Input level/     |                                            |
| input impedance  | -20dBm/1M $\Omega$ , -10dBm/47k $\Omega$   |
| Output level/    |                                            |
| output impedance | -20dBm/2k $\Omega$ , -10dBm/2k $\Omega$    |
| Output load      |                                            |
| impedance        | Over 10k $\Omega$                          |
| THD              | 0.03% or less                              |
| Power            | 9V DC by PSA series<br>AC Adaptor or RPW-7 |
| Current draw     | 9V DC, 60mA                                |
| Dimensions       | 8.9/16(W) x 6.5/8(D) x 1.3/4(H)in.         |
| Weight           | 2 lb.                                      |
| Accessories      | DC Cord, Rubber Foot x 4                   |



## RPQ-10 PREAMP/PARAMETRIC EQUALIZER



The RPQ-10 combines both pre-amplifier and parametric equalizer functions. For a variety of applications, the RPQ-10 offers an equalizing capacity unsurpassed in flexibility and sound quality, ensuring a stable signal feed to the connected devices.

There are two parametric equalizer bands. The low band covers the frequency range from 40Hz to 1kHz, the high band from 600Hz to 15kHz. Each band features a Center-Frequency, Q, and Level sliding controls. The Center-Frequency control adjusts the center frequency. The Q control varies the Q value between 0.7 and 7.0 to adjust the equalizing response. The Level control sets the boost/out level between +15 and -15dB. Equalization can be turned on and off by remote control using the optional FS-5L footswitch.

Three input jacks and an input level control are provided to accommodate a variety of applications. The Overload LED warns of input signal overloads. The INST input jack (phone jack) is used to connect an electronic instrument. The Line input jack (RCA pin jack) is used to connect a line-level instrument such as a tape recorder. And the Mic input jack (phone jack) is used to connect a microphone. Two output jacks—a phone jack and an RCA pin jack—are provided and both can be used at the same time. The Total Level sliding control adjusts the boost/cut level of the output signal from +15 to -15dB.

An LED is featured on every sliding control so that the user can operate the RPQ-10 even in the dark. The LED on the Total Level control blinks when the effect signal exceeds the

### overload level.

### Specifications

|                      |                                                                                          |
|----------------------|------------------------------------------------------------------------------------------|
| Rated input level/   |                                                                                          |
| input impedance      | -50dBm/1k $\Omega$ (Mic),<br>-20dBm/1M $\Omega$ (INST),<br>-10dBm/50k $\Omega$ (Line)    |
| Rated output level/  |                                                                                          |
| output impedance     | -20dBm/2k $\Omega$ (at Phone Jack)<br>-10dBm/2k $\Omega$ (at RCA Pin Jack)               |
| Output load          |                                                                                          |
| impedance            | Over 10k $\Omega$                                                                        |
| Frequency response   | 10Hz to 40kHz, 1dB<br>(at Line Input, All controls at flat positions)                    |
| Residual noise       | -95dBm (1HF-A, at Phone output jack, no input connected, all controls at flat positions) |
| Level variable range | $\pm 15$ dB                                                                              |
| Power                | 9V DC by PSA series<br>AC Adaptor or RPW-7                                               |
| Current draw         | 9V DC, 60mA                                                                              |
| Dimensions           | 8.9/16(W) x 6.5/8(D) x 1.3/4(H)in.                                                       |
| Weight               | 2 lb.                                                                                    |
| Accessories          | DC Cord, Rubber Foot x 4                                                                 |





## RGE-10 GRAPHIC EQUALIZER



The RGE-10 has 10 octave bands at 31, 62, 125, 250, 500, 1k, 2k, 4k, 8k, and 16kHz.

All sliding controls have an LED and a center-click detent for easy, reliable operation even in the dark. A Total Level control balances the level difference between normal and equalized settings.

To facilitate the connections, phone and RCA pin jacks are provided for both input and output. And a level select switch simultaneously sets the input and output level — 10 or —20dBm. The RGE-10 can be used with a variety of devices from musical instrument to hi-fi equipment, and in a variety of situations from home recording to computer-aided music creation.

A Remote jack allows the RGE-10 to be remote-controlled by using an FS-5L footswitch.

### Specifications

|                    |                                                      |
|--------------------|------------------------------------------------------|
| Input level/       |                                                      |
| input impedance    | —20dBm/1M $\Omega$ —10dBm/47k $\Omega$               |
| Output level/      |                                                      |
| output impedance   | —20dBm/2k $\Omega$ —10dBm/2 k $\Omega$               |
| Output load        |                                                      |
| impedance          | Over 10k $\Omega$                                    |
| Frequency response | 10Hz to 60kHz, $\pm$ 1dB<br>(All controls at center) |
| Gain               | Unity                                                |
| Power              | 9V DC by PSA series<br>AC Adaptor or RPW-7           |
| Current draw       | 9V DC, 50mA                                          |
| Dimensions         | 8-9/16(W) x 6-5/16(D) x<br>1-3/4(H)in.               |
| Weight             | 2 lb.                                                |
| Accessories        | DC Cord, Rubber Foot x 4                             |



## ROD-10 OVER DRIVE/DISTORTION



BOSS has condensed five different overdrive and distortion circuits and incorporated them into the ROD-10 Overdrive/Distortion. With its compactness, high sound quality, and a wide variety of effects, the ROD-10 can satisfy the needs of today's guitarists in all playing situations.

The five different overdrive/distortion effects include three kinds of BOSS' unique, highly touch-sensitive overdrive; a sharp, brilliant distortion; and a good old-fashioned fuzz. Each effect is produced by a completely independent circuit. You can select any one of the five distinctive effects by simply rotating a knob. The effects can be turned on and off using an Effect switch on the front panel or by remote control using an FS-5L footswitch. The ROD-10 features discrete amplifier

construction for the effects circuitry to ensure low-noise operation at all times.

A three-band equalizer—high, middle, and bass—is provided for a flexible tone tailoring. The center frequency of the middle band is adjustable from 250Hz to 4kHz. A line output is also provided. It incorporates a special line driver that provides the output signal with a frequency response similar to that obtained by a guitar amplifier. Realistic "amplified" guitar sounds can be obtained even when the ROD-10 is directly connected to a mixer, tape recorder, or any other line-level device.

### Specifications

|                       |                                            |
|-----------------------|--------------------------------------------|
| Input level/          |                                            |
| input impedance       | —20dBm/1M $\Omega$                         |
| Output level/         |                                            |
| output impedance      | —20dBm/2k $\Omega$                         |
| Output load impedance | Over 10k $\Omega$                          |
| Power                 | 9V DC by PSA series<br>AC Adaptor or RPW-7 |
| Current draw          | 9V DC, 50mA                                |
| Dimensions            | 8-9/16(W) x 6-11/16(D) x<br>1-3/4(H)in.    |
| Weight                | 2 lb.                                      |
| Accessories           | DC Cord, Rubber Foot x 4                   |





## RCE-10 DIGITAL CHORUS ENSEMBLE

BOSS has developed a completely new Digital Chorus LSI by fully applying its state-of-the-art digital technology and its vast know-how and experience gained in manufacturing popular chorus units. This Digital Chorus LSI is packed within BOSS' famous Micro-Studio package—the RCE-10 Digital Chorus Ensemble. Thanks to its precise digital circuitry, the RCE-10 creates beautiful, stunningly realistic chorus sounds superior to those of any other chorus unit.

The RCE-10 incorporates two independent chorus circuits. The chorus modulation is achieved within the digital circuitry, allowing two chorus circuits to be completely synchronized. This is impossible for conventional analog modulation circuits to do. The RCE-10 can produce more precise and natural chorus effects than any other chorus unit. In addition,

the rate and depth of the digital modulation can be separately controlled. You can thus tailor the chorus effects with greater precision than ever before.

A Pre-Delay Time control is provided to allow a delay before the chorus effect is applied to the input signal. The longer the pre-delay time, the more spacious the sound. Doubling effects can even be produced. An equalizer is also featured. It tailors chorus sounds without affecting the normal sound. As the equalizer control is turned counter-clockwise, more and more high frequencies are cut out. As it's turned clockwise, more and more low frequencies are cut out. The RCE-10 offers a natural chorus sound even after equalization is applied. A full spectrum of chorus effects, from warm to extremely sharp, can be produced.

As with other Micro-Studio units, the RCE-10 has phone and pin jacks for both input and output. A level switch sets the input and output level at  $-20\text{dBm}$  or  $-10\text{dBm}$ . Stereo output is also possible. The chorus effect can be turned on and off by remote control using the FS-5L footswitch.

### Specifications

|                           |                                                                    |
|---------------------------|--------------------------------------------------------------------|
| Input level/              | $-20\text{dBm}/1\text{M}\Omega$ , $-10\text{dBm}/47\text{k}\Omega$ |
| Output level/             | $-20\text{dBm}/2\text{k}\Omega$ , $-10\text{dBm}/2\text{k}\Omega$  |
| Output impedance          | $-100\text{dBm}$ or less (TH-A, Level switch at $-20\text{dBm}$ )  |
| Output load               | 9V DC by PSA series                                                |
| Impedance                 | AC Adaptor or RPW-7                                                |
| Sampling rate             | 8-9/16(W) $\times$ 6-5/8(D) $\times$ 1-3/4(H)in.                   |
| A/D-D/A conversion system | 2 lb.                                                              |
| Residual noise            | DC Cord, Rubber Foot $\times$ 4                                    |
| Power                     |                                                                    |
| Current draw              |                                                                    |
| Dimensions                |                                                                    |
| Weight                    |                                                                    |
| Accessories               |                                                                    |



## RPW-7 POWER SUPPLY

The RPW-7 is a 9-volt power supply unit capable of providing up to 700mA direct current. The RPW-7 is specifically designed for use with the Micro Studio units, but it can also be used to power BOSS Compact Pedal effects such as the DSD-3 and the DC-2, which operate on a PSA-series AC adaptor.

### Specifications

|                |                                                  |
|----------------|--------------------------------------------------|
| Output voltage | 9V DC                                            |
| Output current | 700mA (max)                                      |
| Switch         | Power                                            |
| Jacks          | DC out $\times$ 5                                |
| Indicator      | Power                                            |
| Power          | AC powered                                       |
| Dimensions     | 8-9/16(W) $\times$ 5-1/2(D) $\times$ 1-5/8(H)in. |
| Weight         | 2 lb. 10 oz.                                     |





## RBF-10 FLANGER

The RBF-10 offers superb features and sound quality comparable to professional flanging units. The unit features two outputs which make stereo flanging from a monaural source possible. Phone and RCA pin input and output jacks are provided and a level select switch simultaneously sets the input and output levels at  $-10$  or  $-20$  dBm.

The RBF-10 offers Rate and Depth controls and the modulation section has a Manual control to adjust the center frequency where flanging occurs. There is also a Mix Balance control to balance direct and effect signals, and a Modulation BUS jack that allows the modulation of two RBF-10's to be interlocked. The feedback circuit features a Feedback Level control.

### Specifications

|                               |                                                |
|-------------------------------|------------------------------------------------|
| Input level/input impedance   | $-20$ dBm/1M $\Omega$ , $-10$ dBm/47k $\Omega$ |
| Output level/output impedance | $-20$ dBm/2k $\Omega$ , $-10$ dBm/2k $\Omega$  |
| Output load impedance         | Over 10k $\Omega$                              |
| Gain                          | Unity                                          |
| Power                         | 9V DC by PSA series AC Adaptor or RPW-7        |
| Current draw                  | 8-9/16(W) x 6-5/8(D) x 1-3/4(H)-in.            |
| Dimensions                    | 2 lb.                                          |
| Weight                        | DC Cord, Rubber Foot x 4                       |
| Accessories                   |                                                |



## RSD-10 DIGITAL SAMPLER/DELAY

The RSD-10 offers up to 2,000ms of sampling time and can control the pitch of any sampled sound to play a melody. If a keyboard synthesizer is connected to the RSD-10, the sampled sound can be dynamically controlled by pitch bending, LFO modulation, and the attack and decay of the synthesizer sound.

The Playback Trim control may be set to provide a gate effect. Two record modes and two playback modes are included, and phone and RCA pin input jacks are provided for sampling sounds from various sources. Overdubbing is also possible. The sampled sound can be activated using the optional BP-1 pad controller or by feeding the RSD-10 trigger signals from a drum machine.

### Specifications

|                               |                                                |
|-------------------------------|------------------------------------------------|
| Input level/input impedance   | $-20$ dBm/1M $\Omega$ , $-10$ dBm/47k $\Omega$ |
| Output level/output impedance | $-20$ dBm/2k $\Omega$ , $-10$ dBm/2k $\Omega$  |
| Output load impedance         | Over 10k $\Omega$                              |
| Gain                          | Unity                                          |
| Power                         | 9V DC by PSA series AC Adaptor or RPW-7        |
| Current draw                  | 8-9/16(W) x 6-5/8(D) x 1-3/4(H)-in.            |
| Dimensions                    | 2 lb.                                          |
| Weight                        | DC Cord, Rubber Foot x 4                       |
| Accessories                   |                                                |

A/D-D/A conversion system

12-bit converter plus analog logarithm compression

2,000ms (max)

2 to 2,000ms

$-35$  dB (THF-A, Level switch at  $-20$  dBm)

External pitch control

Power

C<sub>6</sub> (529-Hz) to C<sub>7</sub> (2,093-Hz)

9V DC by PSA series AC Adaptor or RPW-7

Current draw

8-9/16(W) x 6-5/8(D) x 1-3/4(H)-in.

Dimensions

2 lb. 3 oz.

Weight

DC Cord, Rubber Foot x 4

Accessories



## RPH-10 PHASER

The RPH-10 features three different phase-shifting modes along with Rate, Depth, and Resonance controls and a built-in noise reduction system for superb sound. A Manual control is also provided to control the center frequency where phase-shifting occurs. Phone and RCA pin input and output jacks are provided, and a level select switch sets the input and output level.

To produce impressive, complex phasing effects, the modulation of two RPH-10's may be interlocked using the Modulation BUS jack and the phase can be inverted using the Polarity switch.

### Specifications

|                               |                                                |
|-------------------------------|------------------------------------------------|
| Phase shifting modes          | I (1,080°), II (1,800°), III (2,160°)          |
| Input level/input impedance   | $-20$ dBm/1M $\Omega$ , $-10$ dBm/47k $\Omega$ |
| Output level/output impedance | $-20$ dBm/2k $\Omega$ , $-10$ dBm/2k $\Omega$  |
| Output load impedance         | Over 10k $\Omega$                              |
| Gain                          | Unity                                          |
| Power                         | 9V DC by PSA series AC Adaptor or RPW-7        |
| Current draw                  | 8-9/16(W) x 6-5/8(D) x 1-3/4(H)-in.            |
| Dimensions                    | 2 lb.                                          |
| Weight                        | DC Cord, Rubber Foot x 4                       |
| Accessories                   |                                                |



## RAD-10 RACK-MOUNT ADAPTOR

The RAD-10 holds two Micro Studio units and fits in a single 19-inch EIA rack space. The unit can be secured to the RAD-10 by just one screw. All Roland MIDI Interface units except the MPU-101 can be mounted on the RAD-10.

### Specifications

|             |                                  |
|-------------|----------------------------------|
| Dimensions  | 19(W) x 5-5/16(D) x 1-3/4(H)-in. |
| Weight      | 1 lb. 10 oz.                     |
| Accessories | Unit mounting screw x 2          |



## BMR-5 MICRO SYSTEM RACK

The BMR-5 can hold up to 5 BOSS Micro Studio or Roland MIDI Interface units with the exception of the MPU-101.

### Specifications

|            |                                        |
|------------|----------------------------------------|
| Dimensions | 20-1/2(W) x 13-1/2(D) x 4-13/16(H)-in. |
| Weight     | 11 lb.                                 |



## BX-16 16-CHANNEL STEREO MIXER

The BX-8 and BX-16 stereo mixers are compact, lightweight mixers that are perfect for use with keyboards, drum machines, or any electronic instruments. Both offer superb levels of performance and high quality features including stereo outputs, mic and line level inputs, and a high signal-to-noise ratio that make either unit suitable for a variety of uses including keyboard mixing and multi-track recording.

The BX-8 and BX-16 feature eight and sixteen input channels respectively, and each input can be adjusted separately between microphone or line level. The large number of inputs makes either mixer ideal for use with instruments with multiple outputs such as stereo keyboards, samplers, or drum machines.

Each channel on both mixers contains separate controls for bass and treble equalization, gain, panpot, and volume level. The variety of controls makes it easy to create a great sounding mix.

Both mixers also feature two separate stereo effect send/return loops. Balance between the dry signal and the intensity of the effect for both loops can be adjusted using the two individual effect controls included for each channel.

The BX-8 and BX-16 are the first BOSS mixers to feature RCA pin output jacks in addition to standard phone output jacks. Both sets of jacks may be used simultaneously which allows connection of either mixer to a variety of equipment such as PA systems, multi-track recorders, and stereo systems.

The output line level may be set to either +4dBm or -10dBm by using the output level switch. This permits a high signal-to-noise ratio

to be maintained regardless of the type of equipment connected to either mixer.

A headphone jack that is always live, even when the main outputs are not in use, is provided for monitoring mix through



## BX-8 8-CHANNEL STEREO MIXER

headphones. Red and green LED level meters for the left and right channels, plus overload indicators for each channel, ensure mixing with exceptionally low noise and minimal distortion.

### BX-16/BX-8 Specifications

|                                      |                       | BX-16                                                                                                      | BX-8                                                                                                      |
|--------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Input level (rating)                 |                       | -50dBm to -10dBm                                                                                           |                                                                                                           |
| Input impedance                      |                       | 1kΩ to 100kΩ                                                                                               |                                                                                                           |
| Output level                         | Phone jacks           | +4dBm/-10dBm (rating), +21dBm (max.)                                                                       |                                                                                                           |
|                                      | Pin jacks             | -10dBm (rating), +7dBm (max.)                                                                              |                                                                                                           |
| Output load impedance                |                       | Over 10kΩ                                                                                                  |                                                                                                           |
| Effect send                          | Output level          | -20dBm (rating)                                                                                            |                                                                                                           |
|                                      | Output load impedance | Over 10kΩ                                                                                                  |                                                                                                           |
| Effect return                        | Input level           | -20dBm (rating)                                                                                            |                                                                                                           |
|                                      | Input impedance       | 47kΩ                                                                                                       |                                                                                                           |
| Equivalent input noise               |                       | -115dBm (IHF-A)                                                                                            |                                                                                                           |
| Frequency response (at minimum gain) |                       | 20Hz to 40kHz, +0, -3dB at 0dBm=0.775V                                                                     |                                                                                                           |
| Equalizer                            | Treble                | ±10dB/10kHz                                                                                                |                                                                                                           |
|                                      | Bass                  | ±10dB/100Hz                                                                                                |                                                                                                           |
| Headphones                           |                       | 50mW/300Ω                                                                                                  |                                                                                                           |
| Accessories                          |                       | AC Adaptor, BOSS ACE-120, 220, 240A, 240E                                                                  |                                                                                                           |
| Controls                             | Channels              | Gain, Treble, Bass, Effect 1 send, Effect 2 send, Panpot, Channel fader                                    |                                                                                                           |
|                                      | Master                | Master fader × 2, Effect 1 return, Effect 2 return, Headphones, Level changeover switch, Power switch      |                                                                                                           |
| Jacks                                |                       | Input × 16, Effect send × 2, Effect return × 4, Output (Phone jack) × 2, Output (Pin jack) × 2, Headphones | Input × 8, Effect send × 2, Effect return × 4, Output (Phone jack) × 2, Output (Pin jack) × 2, Headphones |
| Indicators                           | Channels              | Overload indicator                                                                                         |                                                                                                           |
|                                      | Master                | Pilot lamp, Level meter × 2                                                                                |                                                                                                           |
| Dimensions                           |                       | 18-7/8(W) × 9-5/16(D) × 2-11/16(H)in.                                                                      | 12-13/16(W) × 9-5/16(D) × 2-11/16(H)in.                                                                   |
| Weight                               |                       | 5 lb. 8 oz.                                                                                                | 3 lb. 8 oz.                                                                                               |



## KM-04 Micro Mixer

The KM-04 is a small, portable mixer which is ideal for line mixing, multi-keyboard mixing, drum mixing, and other specialized mixing applications. The KM-04 features four input channels of high impedance. Input volume is controlled by individual Channel Volume controls as well as an overall Master Volume control, and an LED peak indicator warns users of overload to help eliminate distortion.

The KM-04's extremely compact, lightweight configuration and battery operation make it easy to use anywhere.

### Specifications

|                       |                                     |
|-----------------------|-------------------------------------|
| Power                 | 9V Battery                          |
| Current draw          | 2.5mA                               |
| Input sensitivity     | 190mV (rms)                         |
| Output level          | 2.1V (rms)                          |
| Input impedance       | Over 22kΩ                           |
| Output load impedance | Over 10kΩ                           |
| Dimensions            | 5-11/16(W) × 3-3/8(D) × 1-7/8(H)in. |
| Weight                | 12 oz.                              |



## BX-80

### 8-CHANNEL STEREO MIXER

The BX-80 is a compact, lightweight eight-channel mixer with stereo outputs that features exceptional sound quality, attractive design, and a high signal-to-noise ratio. Each channel features controls for Input Gain, Bass, and Treble EQ, Panpot, and a channel volume fader. Two Master faders control left and right channel volume levels.

Overload indicators and a LED level meter ensure excellent mixes without noise or distortion. In addition, the input gain controllers allow you to adjust the incoming signal level of each channel for distortion-free performance from any variety of instruments.

An Effect send/return loop offers separate effect level controls for each channel, and you can monitor the mix using the BX-80's built-in headphone jack.

## BX-60

### 6-CHANNEL STEREO MIXER

With six input channels and stereo outputs, the BX-60 is suitable for a variety of mixing applications including keyboard mixing in live performance and multi-track recording. Like all models of the BX series, the BX-60 offers high quality performance and versatility in a durable, road-worthy housing.

Effect return and master level controls allow you to adjust effect intensity and overall volume. Separate gain, effect send, panpot, and volume controls are included for each channel. Each input can accept microphone, instrument, or line level signals by adjusting the input gain control to match the level of the incoming signal.

Peak indicators notify users of overload to eliminate distortion and noise. An effect send/return loop is provided to balance effect intensity separately for each channel.

## BX-40

### 4-CHANNEL STEREO MIXER

The most compact BX-series mixer, the BX-40 is perfect for various mixing applications, such as keyboard mixing in live performance or as a basic mixer for home recording.

Each of the four channels includes a level selector switch that may be set to adjust the mixer to accept either microphone, instrument, or line level inputs for distortion-free performance from a variety of instruments.

To ensure high-quality sound, a peak indicator is provided to warn users of overload. Built in a rugged, attractive housing, the BX-40 is built to the same high standards as the other models in the BX series.

BX-80/BX-60/BX-40 Specifications

|                                      |                       | BX-80                                                                   | BX-60                                                     | BX-40                                      |
|--------------------------------------|-----------------------|-------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------|
| Input level (rating)                 |                       | -50dBm to -10dBm                                                        | -50dBm to -10dBm                                          | -50dBm (MIC), -35dBm (INST), -20dBm (LINE) |
| Input impedance                      |                       | 15kΩ to 100kΩ                                                           | 15kΩ to 100kΩ                                             | 18kΩ (MIC), 15kΩ (INST), 68kΩ (LINE)       |
| Output level                         |                       | Phone jacks: +4dBm (rating)/+21dBm (maximum)                            | +4dBm (rating)/+21dBm (maximum)                           | +4dBm (rating)/+21dBm (maximum)            |
| Output load impedance                |                       | Over 10kΩ                                                               | Over 10kΩ                                                 | Over 10kΩ                                  |
| Effect send                          | Output level          | -20dBm (rating)                                                         | -20dBm (rating)                                           | —                                          |
|                                      | Output load impedance | Over 10kΩ                                                               | Over 10kΩ                                                 | —                                          |
| Effect return                        | Input level           | -20dBm (rating)                                                         | -20dBm (rating)                                           | —                                          |
|                                      | Input impedance       | 47kΩ                                                                    | 40kΩ to 300kΩ                                             | —                                          |
| Equivalent input noise               |                       | -115dBm (IHF-A)                                                         | -115dBm (IHF-A)                                           | -115dBm (IHF-A)                            |
| Frequency response (at minimum gain) |                       | 20Hz to 40kHz, 1dB at 0dBm=0.775V                                       | 20Hz to 20kHz, 1dB at 0dBm=0.775V                         | 10Hz to 40kHz, 1dB (LINE)                  |
| Equalizer                            | Treble                | ±10dB/10kHz                                                             | —                                                         | —                                          |
|                                      | Bass                  | ±10dB/100Hz                                                             | —                                                         | —                                          |
| Headphones                           |                       | 50mW/300Ω                                                               | —                                                         | —                                          |
| Controls                             | Channels              | Gain, Treble, Bass, Effect send, Panpot, Channel fader                  | Gain, Effect volume, Panpot, Channel volume               | Input level select switch, Channel volume  |
|                                      | Master                | Master fader × 2, Effect return, Headphones, Power switch               | Return × 2, Master volume × 2, Power On/Off               | Master volume, Power On/Off                |
| Jacks                                |                       | Input × 8, Effect send, Effect return × 1, Output × 2, Headphones       | Input × 6, Effect send × 1, Effect return × 2, Output × 2 | Input × 4, Output                          |
| Indicators                           |                       | Overload indicator × 8 (Channels), Pilot lamp, Level meter × 2 (Master) | Peak × 2, Pilot lamp                                      | Peak, Pilot lamp                           |
| Dimensions                           |                       | 12-13/16(W) × 9-3/16(D) × 2-15/16(H)in.                                 | 11(W) × 6-1/8(D) × 2-3/8(H)in.                            | 7-1/2(W) × 5-5/16(D) × 2-3/16(H)in.        |
| Weight                               |                       | 4 lb. 14 oz.                                                            | 2 lb. 10 oz.                                              | 1 lb. 12 oz.                               |



**MA-12** micro Monitor

Designed primarily for electronic instruments with digital sound sources, the MA-12 is a compact, high performance active monitor. Producing crystal clear sound, this versatile monitor will accept direct inputs from various electronic instruments, multi-track recorders and portable audio components. The MA-12 is the perfect choice for home and studio applications where quality sound is required but space is limited.

The MA-12 Micro Monitor incorporates a ten-watt (RMS) power amplifier and a newly developed 4-inch full-range speaker with a broad frequency range response. Three input channels are provided to perfectly match various sound sources ranging from keyboards and drum machines to multi-track recorders and other audio components.

Low and High boost controls employ active circuitry for line equalization adjustment of input signals from electronic instruments, cassette recorders and CD players.

The compact dimensions of the MA-12 make it easy to position anywhere and its functional design makes it perfect for a variety of applications.

## Specifications

|                 |                                      |
|-----------------|--------------------------------------|
| Output          | 10W (rms)                            |
| Speaker         | 4 inch full range                    |
| Input           | Phone jack (-10dBm) x 3              |
| Input impedance | Over 50kΩ                            |
| Dimensions      | 5-3/16(W) x 6-1/2(D) x 8-9/16(H) in. |
| Weight          | 5 lb. 1 oz.                          |



**MA-12V** micro Monitor

The MA-12V Micro Monitor, a companion to the popular MA-12 Micro Monitor, is a compact, multi-purpose, active monitor featuring flat frequency response and outstanding sound quality. With line, microphone, and instrument level inputs, the MA-12V is ideal for various electronic instruments including synthesizers, keyboards and rhythm machines or for use with a microphone. The MA-12V may be used as a monitor for multi-track recording, as a speaker system with various audio components, or as a live performance monitor. Its compact size and attractive looks make it perfect for use in home entertainment systems or in home recording studios.

A four-inch full-range speaker and built-in ten-watt (RMS) power amplifier provide excellent sound and dynamic power. Also featured are a Mic In/Instrument/Line In mixing circuit for all-purpose use, and an active Low and High Boost control for equalization adjustments.

## Specifications

|                 |                                                                                 |
|-----------------|---------------------------------------------------------------------------------|
| Output          | 10W (rms)                                                                       |
| Speaker         | 4 inch full range                                                               |
| Inputs          | Phone jacks, Mic x 1 (-45dBm),<br>Instrument x 1 (-15dBm),<br>Line x 1 (-15dBm) |
| Input impedance | Mic: 15kΩ, Instrument: 56kΩ,<br>Line: 56kΩ                                      |
| Dimensions      | 5-3/16(W) x 6-1/2(D) x 8-9/16(H) in.                                            |
| Weight          | 5 lb. 2 oz.                                                                     |





## MA-15A micro Monitor

The BOSS MA-15A Micro Monitor is a powered monitor with extensive controls and connection options. It may be used for stage monitoring, or as a compact amp for back-stage, practice or studio use.

The MA-15A includes an amplifier with 15W (rms) output, and a full range 5 inch speaker which is capable of producing a full, clear sound. High and Low gain inputs are both provided to match a wide variety of

instruments properly, with Volume and Tone controls for the selected input. A separate Auxiliary input is provided, with its own Volume pot to allow a controlled mix between two instruments.

Two output connections are provided. A stereo jack output allows amplified monitoring through a standard pair of stereo Headphones. A Line Out is provided for recording or further amplification.

The MA-15A is enclosed in a molded high-impact plastic shell designed to sit on any flat surface such as a keyboard instrument, or to mount on a microphone stand with the adaptor included. The inclined front panel provides ideal positioning of the monitor speaker and access to the various controls.

### Specifications

|                   |                                           |
|-------------------|-------------------------------------------|
| Output            | 15W (rms)                                 |
| Speaker           | 5 inch full range                         |
| Power             | AC Powered                                |
| Power consumption | 23W                                       |
| Dimensions        | 11-13/16 (W) x 6-3/8 (D) x 6-9/16 (H) in. |
| Weight            | 6 lb. 13 oz.                              |
| Accessory         | Metal adaptor for microphone stand        |



## MS-100A Monitor Speaker

The compact MS-100A Monitor Speaker combines a high 100W handling capacity with exceptional quality and flexibility to make it the best choice for performing musicians. It fully meets musicians' needs by faithfully reproducing signals ranging from 100Hz to 17kHz.

Input and Output jacks are both provided, allowing the parallel connection of multiple units on the same line. Maximum flexibility is achieved through a six position switch which allows the MS-100A to operate at 16Ω at full volume (0dB) or attenuated to either -6, -12

or -18dB, to operate two units in parallel at 4Ω without a drop in volume, or to switch that particular Monitor 'Off' entirely when it is not in use.

The MS-100A's dual five inch full range speakers are housed in a sealed enclosure for maximum sound power and quality. The shell is molded from high-impact plastic with recessed metal mesh speaker grills to provide maximum protection and durability. The unit is designed to stand on any flat surface or to be mounted on a microphone stand with the adaptor provided.

### Specifications

|                         |                                                         |
|-------------------------|---------------------------------------------------------|
| Power handling capacity | 100W                                                    |
| Speakers                | 5 inch full range x 2                                   |
| Impedance               | 4/16Ω                                                   |
| Frequency response      | 100Hz to 17kHz                                          |
| Selector switch         | 40/0/1/16Ω<br>0dB/16Ω<br>-6dB/16Ω<br>-12dB/16Ω<br>-18dB |
| Jacks                   | Parallel input and output                               |
| Dimensions              | 11-13/16 (W) x 6-3/8 (D) x 6-9/16 (H) in.               |
| Weight                  | 7 lb. 11 oz.                                            |
| Accessory               | Metal adaptor for microphone stand                      |



Using the MSA-100 arm holder, the MS-100A or MA-15A can be mounted on a microphone stand or on a wall as shown in the photos.



**DI-1**  
Direct Box

Designed to satisfy every need in every possible situation, the DI-1 provides superb performance and durability.

The DI-1 employs active circuitry instead of a conventional transformer to provide a wide frequency response and a high S/N ratio. It operates on a 9V battery or phantom power from a mixer. The Auto Power Off function automatically shuts off the power if the input level stays below -50dBm for 15 minutes. It also automatically changes the power source from the battery to the phantom power whenever phantom power is supplied.

The input has a plenty of headroom and incorporates a 3-range input attenuator to accept signals from any device. The input impedance is 4.7MΩ when the attenuator is set at 0dB. Even devices with very high impedance can be connected to a mixer or

other device without tone deterioration.

The balanced output features phase reversing and ground lifting switches and is also ground compensated. There are also Para-Out and Unbalanced jacks.

## Specifications

|                       |                                                |
|-----------------------|------------------------------------------------|
| Power                 | 9V Battery, Phantom Power (24 to 48V DC)       |
| Current draw          | 9V DC, 5mA                                     |
| Maximum input level   | +45dBm at 1kHz                                 |
| Input impedance       | 4.7MΩ/37kΩ/33kΩ                                |
| Output load impedance | Over 200Ω (balanced)<br>Over 10kΩ (unbalanced) |
| Residual noise        | -110dBm or less (IHF-A)                        |
| THD                   | 0.05% or less                                  |
| Dimensions            | 3-13/16(W) × 4-15/16(D) × 1-13/16(H)in.        |
| Weight                | 1 lb. 1 oz.                                    |



**J-44**  
Multiple Jack

The phone plug connection has become the standard means of connection for electric and electronic musical instruments, however, the mini-phone plug has recently come increasingly into use for convenience in size and reduced cost. And, as we know, the RCA-type plug is the standard for home audio equipment. But, what happens when you need to connect different pieces of equipment that have different connecting jacks?

The J-44 Multiple Jack is intended to solve these connecting problems, and simplify the interface between professional musical equipment and home audio equipment, so you can get the most out of the equipment you own.

The J-44 has two channels, each of which contains four jack connections, (2-phone, 1 RCA, and 1 mini-phone), to facilitate almost any kind of connection. With the J-44, a monaural signal source is easily converted into two channels for connection to a stereo cassette deck, or other two-channel piece of equipment. All of this makes the J-44 a handy accessory that becomes ever more useful as matching connections become more complex.

## Specifications

|            |                                                      |
|------------|------------------------------------------------------|
| Jacks      | Phone jack × 4, RCA jack × 2,<br>Mini-phone jack × 2 |
| Dimensions | 3-15/16(W) × 2-15/16(D) × 1-1/2(H)in.                |
| Weight     | 8 oz.                                                |



**J-5**  
Multiple Jack

This novel accessory allows you to connect one input to up to four outputs at one time.

The J-5 is great for simplifying a wiring scheme when using multiple amplifiers or line locks, without the normal jumble of "spaghetti" normally associated with Y cords.

The J-5 is also usable in connecting several sets of speakers to one amplifier output, or in sending gate pulses from a device like a rhythm unit to other voltage controlled devices such as synthesizers or digital sequencers.

## Specifications

|            |                                       |
|------------|---------------------------------------|
| Dimensions | 3-15/16(W) × 2-15/16(D) × 1-1/2(H)in. |
| Weight     | 7 oz.                                 |

## PCS Cords

|                                      |          |       |
|--------------------------------------|----------|-------|
| Angle phone plug ↔ Angle phone plug  |          |       |
|                                      |          |       |
| PCS-188 (10C)                        | 10cm × 5 | Black |
| PCS-198 (10C)                        | 70cm × 1 | Black |
| 8-pin parallel cord (for AC adaptor) |          |       |
|                                      |          |       |
| PCS-20A                              | 1m × 1   | Black |

NOTE: OFC (Oxygen Free Copper) having a purity of 99.99% is employed for audio signal PCS cords, thereby ensuring high-grade sound transfer suitable for digital equipment.

|                       |          |      |
|-----------------------|----------|------|
| DC plug ↔ DC plug     |          |      |
|                       |          |      |
| PCS-25                | 50cm × 2 | Gray |
| PCS-26                | 1m × 2   | Gray |
| PCS-27                | 2.5m × 2 | Gray |
| DC jack ↔ DC plug × 2 |          |      |
|                       |          |      |
| PCS-28                | 2.5m × 1 | Gray |
| PCS-29                | 20cm × 2 | Gray |



**ACA Series AC Adaptors**



**PSA Series AC Adaptors**



**6AM6 Alkaline Battery**  
**006P Carbon-Zinc Battery**

All BOSS Compact effects units are designed to operate on a battery, or on AC with an adaptor. The BOSS ACA 120 is designed to operate BOSS effects from 117V line current. Optional ACA Adaptors also available for 220V and 240V 50/60Hz line currents.

The PSA Adapter is supplied as a standard part of the PSM-5 Power Supply & Master Switch, and is designed to supply power to up to five BOSS effects. It is shown here to illustrate that it can also be purchased separately from the PSM-5, should it become lost or damaged.

The 6AM6 9V alkaline battery supplies power for a BOSS compact pedal, especially a compact pedal that draws more than 10mA current, for a much longer time than a conventional 9V carbon-zinc battery can.

| Model  | Battery Life (carbon-zinc) | Battery Life (alkaline) |
|--------|----------------------------|-------------------------|
| DS-3   | Approx. 12 to 2 hours      | Approx. 5 to 10 hours   |
| BF-2   | Approx. 5 to 20 hours      | Approx. 15 to 60 hours  |
| TU-12H | Approx. 20 to 50 hours     | Approx. 35 to 70 hours  |
| CE-3   | Approx. 20 to 50 hours     | Approx. 35 to 70 hours  |

Battery life is greatly affected by usage and environment. The minimum battery life figures above were obtained by operating the compact pedal continuously at the maximum draw.

#### Current Draw Chart (9V DC)

|             |              |       |       |
|-------------|--------------|-------|-------|
| RV-2        | 100mA        | BF-2B | 14mA  |
| MZ-2        | 70mA         | CE-3  | 13mA  |
| DC-3        | 65mA         | DS-2  | 12mA  |
| PS-2        | 60mA         | LM-2  | 12mA  |
| DS-3        | 45mA to 60mA | OD-2  | 10mA  |
| DD-3        | 55mA         | DF-2  | 10mA  |
| DC-2        | 30mA         | HM-2  | 10mA  |
| MPD-4       | 20mA         | CS-3  | 10mA  |
| DRP-III/III | 30mA         | CE-2B | 10mA  |
| TU-100      | 30mA (max)   | CE-2  | 9mA   |
| NS-2        | 20mA         | DB-66 | 9mA   |
| PH-2        | 20mA (max)   | GE-7  | 7mA   |
| TU-12       | 20mA (max)   | DI-1  | 5mA   |
| TU-12H      | 20mA (max)   | DS-1  | 4mA   |
| DM-3        | 18mA         | OC-2  | 4mA   |
| HF-2        | 18mA (max)   | CS-2  | 4mA   |
| FT-2        | 16mA         | NF-1  | 29mA  |
| GE-7B       | 16mA         | OD-1  | 35mA  |
| TU-12S      | 15mA         | SD-1  | 35mA  |
| BF-2        | 15mA         | KM-04 | 2.5mA |

#### AC Adaptor Compatibility Chart

|             | ACA Adaptor | PSA Adaptor | PSA with PSM-5 | RPW-7 |
|-------------|-------------|-------------|----------------|-------|
| OD-2        | ○           | ×           | ○              | ×     |
| OD-1        | ○           | ×           | ○              | ×     |
| SD-1        | ○           | ×           | ○              | ×     |
| DS-2        | ×           | ○           | ○              | ○     |
| DS-1        | ○           | ×           | ○              | ×     |
| DF-2        | ○           | ×           | ○              | ×     |
| HM-2        | ○           | ×           | ○              | ×     |
| MZ-2        | ×           | ○           | ○              | ○     |
| DD-3        | ×           | ○           | ○              | ○     |
| DS-3        | ×           | ○           | ○              | ○     |
| RV-2 *      | ×           | ○           | ×              | ○     |
| PS-2        | ×           | ○           | ○              | ○     |
| CE-3        | ○           | ×           | ○              | ×     |
| CE-2        | ○           | ×           | ○              | ×     |
| DC-3        | ×           | ○           | ○              | ○     |
| BF-2        | ○           | ×           | ○              | ×     |
| HF-2        | ○           | ×           | ○              | ×     |
| PH-2        | ○           | ×           | ○              | ×     |
| CS-3        | ○           | ×           | ○              | ×     |
| LM-2        | ○           | ×           | ○              | ×     |
| GE-7        | ○           | ×           | ○              | ×     |
| OC-2        | ○           | ×           | ○              | ×     |
| NS-2        | ×           | ○           | ○              | ○     |
| FT-2        | ○           | ×           | ○              | ×     |
| GE-7B       | ○           | ×           | ○              | ×     |
| CE-2B       | ○           | ×           | ○              | ×     |
| BF-2B       | ○           | ×           | ○              | ×     |
| PSM-5       | ×           | ○           | ○              | ○     |
| DR-220 A/E  | ×           | ○           | ○              | ○     |
| DB-66       | ×           | ○           | ○              | ○     |
| DRP-III/III | ×           | ○           | ○              | ○     |
| MPD-4       | ×           | ○           | ○              | ○     |
| TU-100      | ×           | ○           | ○              | ○     |
| TU-12       | ×           | ○           | ○              | ○     |
| TU-12H      | ×           | ○           | ○              | ○     |
| TU-12S      | ×           | ○           | ○              | ○     |
| RV-10       | ×           | ○           | ○              | ○     |
| RPS-10      | ×           | ○           | ○              | ○     |
| RPD-10      | ×           | ○           | ○              | ○     |
| RDD-20      | ×           | ○           | ○              | ○     |
| RGL-10      | ×           | ○           | ○              | ○     |
| RPQ-10      | ×           | ○           | ○              | ○     |
| RGE-10      | ×           | ○           | ○              | ○     |
| RDD-10      | ×           | ○           | ○              | ○     |
| RCE-10      | ×           | ○           | ○              | ○     |
| RBF-10      | ×           | ○           | ○              | ○     |
| RSD-10      | ×           | ○           | ○              | ○     |
| RPH-10      | ×           | ○           | ○              | ○     |

\*One PSA Adaptor must be used with each RV-2



\* Specifications and appearance subject to change without notice.